From Liability to Asset: Funding Accelerated Nuclear Site Regeneration

Nuclear decommissioning has traditionally been viewed as a liability management activity focused on reducing environmental and radiological risks. While these objectives remain fundamental, there is growing recognition that accelerated decommissioning can also serve as a catalyst for economic regeneration, unlocking value that would otherwise remain tied up in legacy assets for decades.

By reducing environmental liabilities, releasing land for productive use, and enabling new commercial, scientific and strategic missions, accelerated decommissioning can transform former nuclear sites into engines of future growth. For governments, regulators, site owners and investors, this presents an opportunity to rethink the way decommissioning programmes are funded and evaluated.

At Amentum, we collaborate with stakeholders to realise this opportunity, and in this paper we present two such examples. The experience of UCOR, a JV delivering environmental cleanup at the U.S. Department of Energy's Oak Ridge Reservation, demonstrates how accelerated cleanup can create measurable economic and societal value. At the same time, lessons emerging from Hanford highlight the importance of integrating regeneration and future land-use planning into cleanup strategies from the outset.

The result is a powerful proposition: accelerated decommissioning compresses the time required to transform nuclear liabilities into productive assets.

The Economic Case for Accelerated Decommissioning

Traditional decommissioning approaches often extend the period during which facilities remain in surveillance and maintenance, delaying redevelopment opportunities and prolonging the cost of managing environmental liabilities. While this may defer expenditure, it also postpones the benefits that can be realised from land reuse and regeneration.

Accelerated decommissioning offers a different value proposition. By reducing the time required to eliminate environmental hazards and release land for future use, site owners and governments can realise benefits earlier, including:

- Reduced lifecycle programme costs;
- Earlier elimination of environmental liabilities;
- Sustained highly skilled nuclear workforce;
- Faster return on public investment;
- Increased certainty for investors and stakeholders;
- Earlier access to redevelopment opportunities; and
- Greater flexibility to support future industrial, scientific and societal needs.

From a funding and financing perspective, the most important metric may be "time-to-value" – the period between investment in cleanup and the realisation of economic, environmental and societal benefits. Accelerated while reducing the costs associated with maintaining legacy facilities.

Viewed through this lens, decommissioning becomes more than a compliance obligation or cost reduction exercise; it becomes a strategic investment in future economic growth.

Site Regeneration as a Value-Creation Strategy

The economic value of a remediated nuclear site typically exceeds the value generated during prolonged periods of care and maintenance. Once environmental risks are addressed and land is released, former nuclear sites can support a wide range of new uses, including advanced manufacturing, clean energy projects, research campuses, industrial development, conservation initiatives and commercial enterprises.

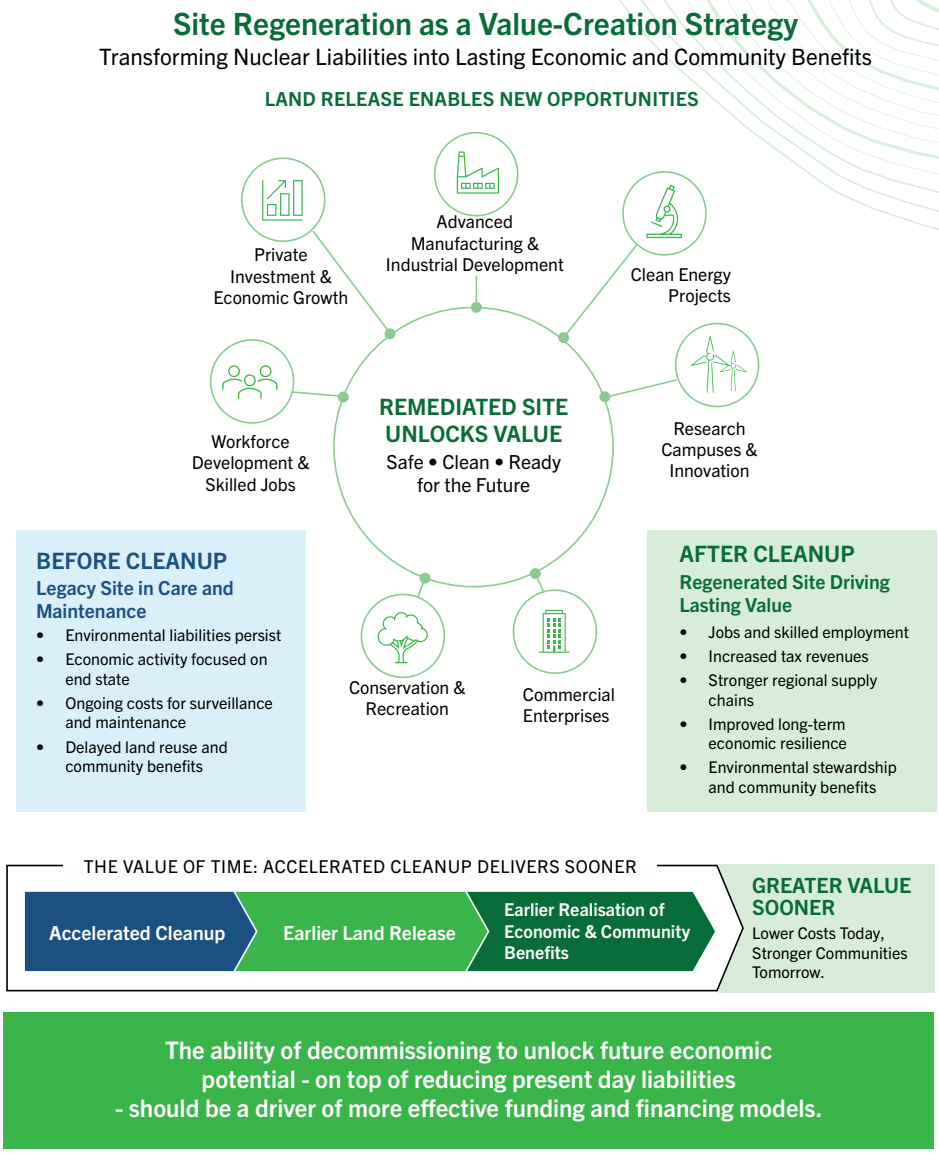
Importantly, these benefits extend beyond the site boundary. Regeneration can attract private investment, create skilled employment opportunities, strengthen regional supply chains, increase tax revenues and improve long-term economic resilience.

The timing of these benefits is critical. Every year gained through accelerated cleanup enables communities, investors and governments to realise value sooner while simultaneously reducing the costs associated with managing environmental liabilities.

As funding models evolve, there is increasing merit in assessing decommissioning programmes not only on the basis of liability reduction, but also on their ability to unlock future economic potential.

Oak Ridge Reservation: Regeneration in Action

The Oak Ridge Reservation in Tennessee provides one of the most compelling examples of how accelerated decommissioning can unlock significant value.



As the U.S. Department of Energy's environmental cleanup contractor, UCOR – an Amentum-led joint venture – delivered the world's first cleanup of a former gaseous diffusion complex through the completion of its 'Vision 2020'. The programme was completed four years ahead of schedule, delivered approximately $80 million under budget and eliminated an estimated $500 million in environmental liability.

However, the most enduring impact of the programme lies not in the cleanup itself, but in what it enabled.

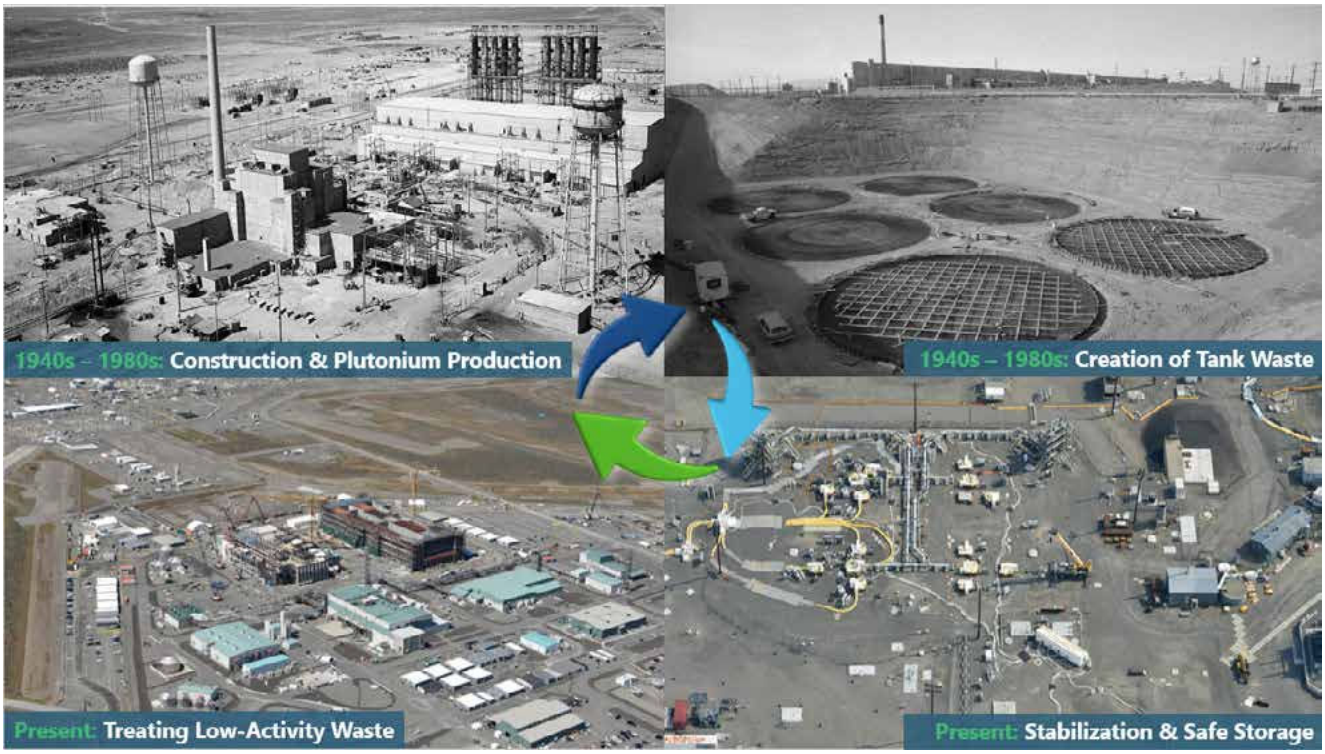
More than 1,300 acres of land were released for economic development through the Heritage Center, formerly the East Tennessee Technology Park. The site has since attracted new investment and industrial activity, including advanced nuclear technology and fuel manufacturing businesses. Additional land has been transferred for conservation and recreation, creating broader environmental and community benefits.

The regeneration model continues across the Oak Ridge Reservation. Cleanup activities at the Y-12 National Security Complex and Oak Ridge National Laboratory are removing aging facilities and reducing environmental risk while enabling future science and national security missions. The transformation of the former Biology Complex footprint, which is planned to support a new Lithium Processing Facility, demonstrates how environmental cleanup can directly enable strategic national infrastructure and future mission delivery.

The Oak Ridge experience demonstrates that accelerated decommissioning can do more than remove liabilities. It can create the conditions for investment, innovation, job creation and long-term regional growth.

Beyond Cleanup: The Hanford Transformation Mindset

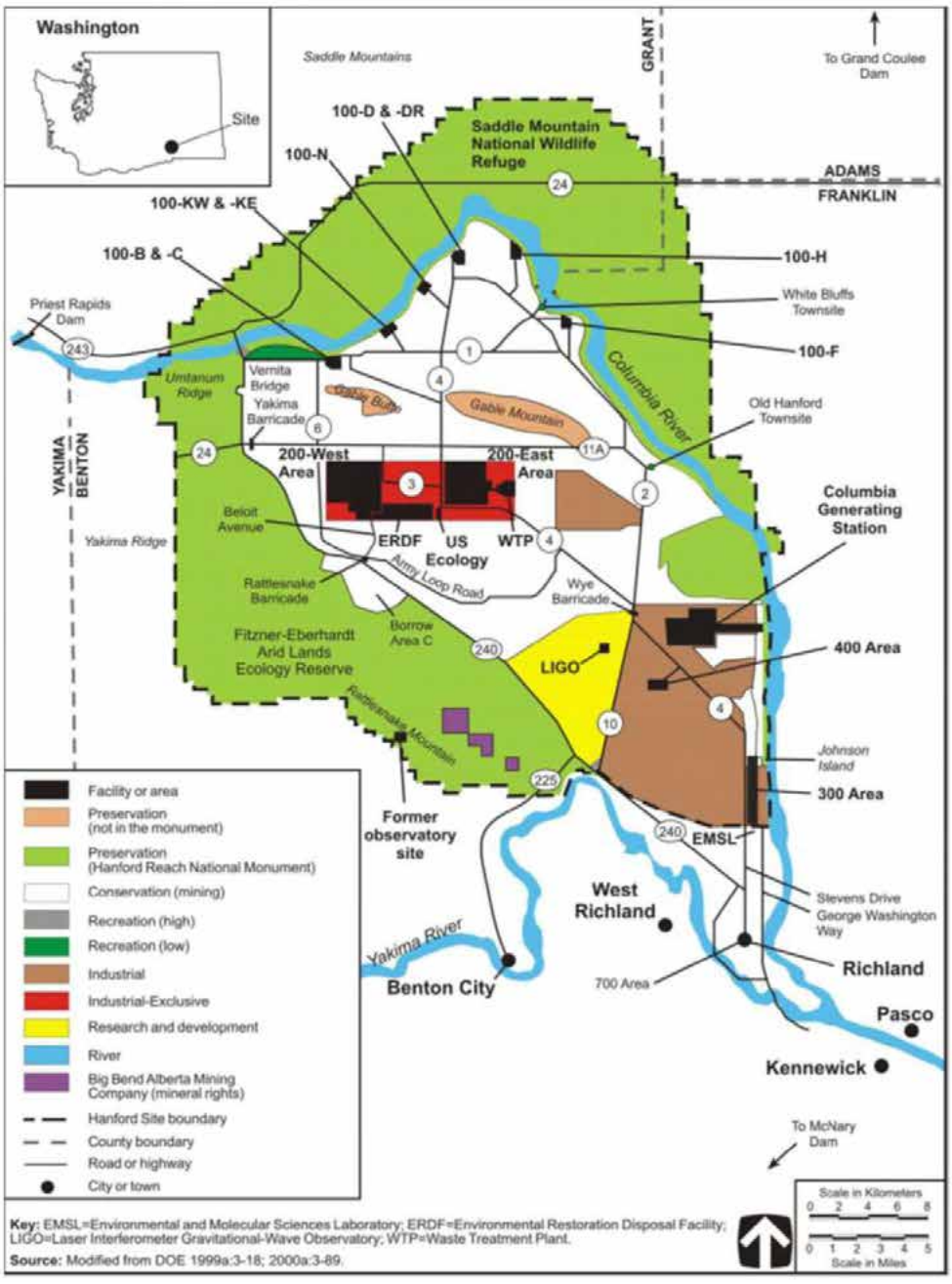
While Oak Ridge demonstrates the tangible benefits that can be realised through accelerated cleanup, the Hanford Site in Washington State highlights an equally important consideration: the need to view decommissioning through the lens of long-term transformation.



Covering approximately 1,500 square kilometres and representing one of the largest environmental remediation programmes in the world, Hanford illustrates both the scale of the challenge and the scale of the opportunity associated with legacy nuclear sites. The site's long-term cleanup mission carries significant future investment requirements, reinforcing the importance of maximising the value generated through remediation and land-use planning.

Amentum's work at Hanford promotes a transformation mindset in which cleanup is not regarded as the end state, but as the enabler of future economic, environmental and societal outcomes. This approach recognises that former nuclear sites often possess substantial hidden value, including extensive electrical infrastructure, transportation networks, skilled workforces, proximity to research institutions and significant land assets suitable for redevelopment.

The Hanford Comprehensive Land Use Plan demonstrates how remediation, conservation, industrial development and community interests can be considered together as part of a long-term vision for the site. Rather than treating cleanup and regeneration as separate activities, future land use is incorporated into strategic planning from the outset.



This perspective offers an important lesson for governments, investors and site owners. The greatest value from decommissioning programmes may not come solely from reducing liabilities, but from creating the conditions for future investment, innovation, environmental stewardship and community development. In this model, cleanup becomes a catalyst, partnerships become multipliers and investment becomes an engine for regional transformation.

Implications for Funding and Financing Models

The experiences of Oak Ridge and Hanford suggest that future funding and financing models should evaluate decommissioning programmes through a broader value framework.

Traditional investment assessments often focus on project costs, schedules and liability reduction. While these remain important, they do not fully capture the economic value created through earlier land release, redevelopment opportunities, infrastructure reuse, attraction of private capital and support for future strategic missions.

Incorporating these wider benefits into investment decisions can strengthen the business case for accelerated cleanup and provide a more complete understanding of programme value. It also encourages earlier engagement between government, industry, investors and communities to identify future land uses and maximise long-term returns.

Ultimately, the most successful decommissioning programmes may be those that plan for regeneration from the beginning, rather than treating it as an outcome to be considered after cleanup is complete.

Conclusion

The nuclear industry is increasingly challenged to address legacy liabilities while demonstrating value for taxpayers, stakeholders and future generations.

The experiences of Oak Ridge and Hanford demonstrate that accelerated decommissioning can achieve far more than environmental remediation alone. It can unlock land, attract investment, enable new missions, create jobs and support long-term regional development.

For governments, site owners and investors, the opportunity is clear. By viewing decommissioning through a regeneration lens, nuclear liabilities can be transformed into productive assets more quickly, generating economic, environmental and societal value far sooner than traditional approaches allow.

The question is no longer whether sites can be decommissioned safely. The challenge is how quickly the value created by regeneration can be realised once those liabilities are removed.