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LONG-TERM RECOVERY: ESCAPING THE RESTORATION DEFAULT

A Field Manual for Rebuilding Communities on a Stronger Development Trajectory

Institute for Sustainable Development

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This manual provides general policy and implementation guidance. Jurisdictions should obtain legal, financial, insurance, and technical advice appropriate to their governing authorities and risk profile.

Recovery at a Glance

A one-page reference for busy leaders. Everything on this page is developed in the body of the paper.

Question	Answer
What is long-term recovery?	The phase in which a community moves beyond stabilization to make deliberate, permanent decisions about what to restore, harden, redesign, relocate, repurpose, retire, or create — resuming its development trajectory rather than simply replacing what broke.
When does it begin?	Formally, when long-term recovery funds are actively deployed in the community. In practice, discernment work should begin much earlier — see below.
When does it end?	When recovery projects have transitioned into normal governance and the community has an adopted, funded development trajectory.
What are the central risks?	• Restoration bias — rebuilding the pre-disaster baseline, vulnerabilities included. • Structural decline — a weak pre-disaster trajectory misread as disaster damage. • A K-shaped recovery — well-resourced residents and businesses recovering quickly while lower-income and more vulnerable populations are displaced or permanently reduced in circumstances.
What is the Discernment Window?	The period during which reconstruction decisions can still be changed before they lock into contracts, land use, and permanent funding allocations — this paper's central planning device. Early discernment should begin once Stabilization is under way, and the emergency responders signal that it is safe for civilians to enter into disaster zones. It often needs to start earlier than recovery planners anticipate, to take full advantage of early offers of assistance before they expire.
Essential vs. Aspirational objectives?	A minimalist recovery agenda of Essential (Must-Have) objectives — defensible and fundable even in a bad funding year — and a maximalist agenda of Aspirational (Nice-to-Have) objectives, activated as funding allows — set deliberately during normal operating conditions, not improvised under pressure.
Who runs it?	The jurisdiction's senior elected or appointed official owns accountability. A Recovery Coordinator — one point on a continuous management spine with the Stabilization Coordinator and Chief Resilience Officer — runs it day to day. These roles overlap in time rather than handing off cleanly; see “Where This Paper Fits.”

The Long-Term Recovery Operating System

The tools in this paper are easiest to use as one connected system rather than as separate ideas encountered section by section. The table below maps each management task to its tool and where it's developed — read top to bottom for the logical sequence of a single asset's journey through recovery, but see the note below on why real jurisdictions run several rows at once rather than moving through them in strict order.

Management Task	Tool	Where
Understand what changed	Post-Disaster Reality Assessment	Section V
Preserve decision space before commitments lock in	Discernment Window (Early and Formal)	Section V
Decide what happens to each asset	Restore/Harden/Redesign/Relocate/Repurpose/Retire/Create Matrix	Section V, Appendix B
Set the funding floor and ceiling	Essential (Must-Have) and Aspirational (Nice-to-Have) objectives	Section IV, Appendix E
Codify the community's decisions	Recovery Charter	Section V, Appendix A
Sequence and prioritize investments	Strategic Recovery Portfolio	Section V, Section IX
See across government, market, and VOAD assistance	Recovery Stack visibility function / Dashboard	Section VI, Appendix D
Match capital to purpose	Alternative Recovery Capital Stack	Section VII
Monitor whether it's working	Long-Term Recovery Scorecard	Section VIII, Appendix F
Correct course	Annual Trajectory Review	Section VIII
Return to normal governance	Recovery Coordinator sunset into the CRO	Section IX

This is not a checklist to complete once, top to bottom, and close out. A jurisdiction is typically running several of these rows concurrently across different parts of the same disaster zone — drafting the Matrix for one neighborhood while still running the Reality Assessment for another, because damage and stabilization progress unevenly across any real community. The system is a repertoire a Recovery Coordinator draws on continuously, not a sequence a jurisdiction follows through once.

Where This Paper Fits

This is the third field manual in ISD's disaster-management series, outlining management disciplines that complement emergency management rather than replace it. This series describes how states and localities could organize duties, functions, and deliverables if they chose to operate through a development-based resilience lens instead — one where recovery is understood as a phase of a community's ongoing development, not a self-contained emergency-management exercise that ends when the incident is closed out.

Each phase of this model — sometimes called community continuity management — has its own domain expertise, the same way personal risk management does. Consider how individuals manage the risk of driving: most of the actual risk-reduction work happens during normal conditions, when people buy insurance, take driver's education, and manufacturers and road engineers do their jobs. At the community level, those are the duties of the resilience officer. When a crash happens, EMTs are the equivalent of emergency managers; they in turn hand primary responsibility to doctors who stabilize the patient and to the collision center that assesses the damage. Depending on the disaster's size, the equivalent stabilization phase — displacement, temporary housing, business and job closures, trauma management, and related issues — typically runs 6 to 24 months. Long-term recovery is when permanent decisions begin to be implemented.

The Resilience Executive describes the continuous management capacity — the Chief Resilience Officer — that a community should already have in place before any of this begins, and that the Recovery Coordinator role introduced in Section IX transitions its remaining functions into once recovery ends. *Empowering States for a Resilient Future* supplies the state-level financing architecture referenced in Section VII. And the *Community Assets Framework* supplies the deepest foundation of all: the premise, argued in that paper's executive summary, that disaster management should be understood through the lens of community development rather than emergency management — as investment in a capital position, not spending against a budget. This paper is one extended application of that premise to a single, high-stakes phase of the development cycle.

All of these phases can operate concurrently within a single disaster zone, because different areas are damaged to different degrees and different issues need managing at the same time — so a Chief Resilience Officer, an emergency manager, a Stabilization Coordinator, and a Recovery Coordinator can all be active simultaneously, each working a different part of the same community. This series should not be read as a strict linear progression in which one coordinator's work ends before the next one's begins. It is a set of complementary management disciplines, not a relay with clean handoffs.

Readers who have not encountered the earlier papers can proceed without them. Readers who have will recognize the connective tissue throughout — it is deliberate, not incidental. In an increasingly networked and interdependent set of communities, it is fitting that these disciplines are integrated and unified around one goal: durable, sustainable, resilient community development.

I. Goals and Objectives of Recovery

Long-term recovery is not the act of merely putting a community back together. It is the resumption of a community's development trajectory following an interruption severe enough to disrupt the process for an extended period of time.

This paper treats disaster recovery the way ISD's Community Assets Framework treats disaster management generally: as a special, urgent use case of ordinary community development, not as a separate discipline governed by its own logic. That distinction matters because emergency management and community development ask different questions. Emergency management asks whether life safety was protected, whether services were restored, and whether the incident was closed out. Those are the right questions for that phase, but they are not the questions that determine whether a community is stronger or weaker five years later. A community can answer every emergency-management question correctly — debris cleared, power restored, grants closed out on schedule — and still emerge from recovery smaller, poorer, and more vulnerable than it was the day before the disaster. This paper is written for the leaders who have to answer to that second set of questions, long after the first set has been resolved.

Four Recovery Postures

Every recovery decision for a single home, a commercial district, or an entire regional economy, falls into one of four postures. None is inherently correct or wrong; the discipline this paper argues for is choosing among them deliberately, asset by asset, rather than defaulting to the first by omission. The default this paper argues against is Restoration-by-omission — rebuilding on autopilot because no one asked the question — not Restoration itself, which is often the right answer once actually chosen.

Posture	Definition
Restoration	Rebuild substantially what existed. The default outcome for most communities.
Resilient Restoration	Rebuild the same basic community, but safer and stronger — the same footprint and function, hardened against recurrence.
Strategic Adaptation	Change selected systems, locations, industries, infrastructure, or institutions where the pre-disaster arrangement was a constraint on the community's trajectory.
Transformational Recovery	Use the recovery to deliberately adopt a materially different development model. Appropriate occasionally, not routinely — this paper does not assume transformation is always superior.

Not every community should pursue transformation, and not every asset within a single community should receive the same posture. A jurisdiction's housing stock might warrant resilient restoration while its commercial waterfront warrants strategic adaptation and a single vulnerable low-lying neighborhood like the Lower 9th Ward in New Orleans, warrants a much deeper evaluation. Section V's discernment tools are built to make that asset-by-asset judgment explicit rather than leaving it to whichever posture happens to be administratively easiest. These four postures describe the overall strategic orientation of a recovery; the seven-option Restore/Harden/Redesign/Relocate/Repurpose/Retire/Create Matrix in Section V is the asset-level decision tool used to implement that orientation.

Five Dimensions of Successful Recovery

Officials evaluating whether a recovery is succeeding need more than a single yardstick. This paper uses five dimensions, adapted from the nine-capital taxonomy in the Community Assets Framework and narrowed to the ones a recovery leader can actually track in real time.

Dimension	Core Question
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Safety and Risk Reduction	Has exposure been reduced? Is the rebuilt community more insurable than it was before?
Institutional Capacity	Did recovery leave the jurisdiction with stronger planning, data, procurement, and grant-management capacity or will it have to be rebuilt again?
Developmental Trajectory	Is the economic base stronger? Have the constraints that limited the community before the disaster actually been addressed, or only reconstructed?
Retention and Distribution	Who returned, who could not, and who owns what got rebuilt?
Identity and Legacy	Has the community preserved what made it distinctive, or has generic reconstruction quietly displaced local character?

These dimensions trade off against one another more often than officials would like. A paper that pretended otherwise would not be credible to the practitioners it is written for. Section V's Recovery Charter is where a community makes those tradeoffs formally and explicitly, rather than making them by accident, dimension by dimension, decision by decision.

The Counterfactual Recovery Test

Whether a recovery is succeeding cannot be judged against a single baseline. This paper uses three, evaluated together.

Baseline	Core Question
Pre-disaster condition	Have losses actually been repaired?
Pre-disaster trajectory	Is the community doing better than it probably would have without the disaster — or merely no worse?
Strategic potential	Did recovery improve the conditions that were limiting the community's future development before the disaster hit?

Officials can build reasonable scenarios from population trends, workforce data, housing starts, business survival rates, tax base, insurance availability, and known infrastructure liabilities — most of which a mid-sized jurisdiction's planning department already tracks for other purposes. The test is a discipline, not a model: it forces the question of trajectory, not just repair, onto the table, and it digs beneath the surface of the over-all community to look at how the component neighborhoods are doing as well.

Ensuring Pre-Disaster Residents Benefit the Most

The Retention and Distribution dimension above is where this paper's developmental framing carries the most ethical weight. Recovery exists primarily to serve the interests of pre-disaster residents — the people and businesses who were there before the disaster and who bore its cost. A recovery process too slow, too complex, or too document-intensive for those residents to navigate works directly against the purpose the process exists to serve, and it does so unevenly. Low- and moderate-income households, elderly residents, and heirs'-property owners without ready access to legal or financial capacity are the residents least able to wait out a multi-year process, and they are disproportionately the ones displaced by it — not by the disaster itself, but by the recovery.

This is the same argument the Stabilization paper makes about the Retention Window, applied over a longer clock. Stabilization treats speed as a retention problem measured in months. Long-term recovery has to treat speed as an equity problem measured in years — and Section III's treatment of Housing takes this as its starting premise rather than a footnote. Appendix H's worked example shows what this looks like measured rather than asserted: a 33-point gap between above-median and below-median resident return is a K-shaped recovery in progress, and it is only visible because return was tracked by income band rather than as a single aggregate figure.

Left unmanaged, this produces what this paper calls a K-shaped recovery: well-resourced residents and businesses recover quickly, often within the timelines the Facts table in Section II documents for growing metros, while lower-income and more vulnerable households and small businesses are displaced or permanently reduced in circumstances — two divergent lines on the same chart, not one recovery experienced unevenly. A jurisdiction can report a technically successful recovery on every aggregate indicator in Section VIII's scorecard while a K-shaped pattern is unfolding underneath it, which is exactly why the scorecard tracks retention and distribution by income band rather than as a single aggregate number.

II. Why This Is Hard: Recovery's Default Toward Restoration

Most communities rebuild toward the status quo ante. That outcome is rarely chosen after a deliberate comparison of alternatives. It is produced by thousands of smaller administrative decisions that make rebuilding what *existed* easier than building what is *needed*.

The Facts

Recovery takes longer, and produces more uneven outcomes, than most officials planning for their first disaster expect. The comparison below tracks six disasters against four metrics, defined at the metro-area, since some localities within a metro do not or should get rebuilt at all because of safety, ethical, and other reasons.

Disaster	CDBG-DR: Time to First Disbursement	Essential Services Restored	Return to Sustained Positive Economic Growth	Return to Pre-Disaster Metro Population Baseline
Hurricane Hugo (1989) — Charleston, SC	N/A — CDBG-DR did not yet exist as a standing program	~18 days — power fully restored by Oct. 9, 1989, beating initial 30+ day estimates	~3 weeks — tourism infrastructure (62 golf courses, 11,000 motel rooms) substantially back online, a fast rebound for the state's #2 industry	Not applicable — metro never fell below baseline; Charleston County grew from ~300,000 (1990) to ~425,000 (2023)
Loma Prieta Earthquake (1989) — SF Bay Area	N/A — predates CDBG-DR	~3 days — power restored region-wide by Oct. 20, 1989	~6 months — roughly 80% of regional output losses recovered by mid-1990	Not applicable — metro never fell below baseline; Bay Area grew more than 35% over the following three decades
Hurricane Andrew (1992) — Miami-Dade, FL	N/A — predates CDBG-DR as a standing program; Congress used ad hoc supplemental appropriations	Several weeks region-wide; multi-year rebuild for hardest-hit Homestead/Florida City specifically	~1 month — NY Fed's regional employment index shows Miami-Dade saw just a one-month pause before resuming its prior growth path, the fastest of any event the Fed studied	Not applicable at metro scale — Miami-Dade grew roughly 35% over subsequent decades, though ~100,000 residents left the hardest-hit south Dade area permanently

9/11 (2001) — Lower Manhattan / NYC metro	First \$700M CDBG installment's use plan finalized ~4.5 months after the attack (Jan. 30, 2002); full \$2.783B took years to fully disburse via the Lower Manhattan Development Corporation	NYSE reopened 6 days after the attack; most utilities restored within about a month; some transit links (PATH to the WTC site) took years to fully restore	~6 months — NYC private-sector employment stabilized by spring 2002 (NY Fed). Caution: the city had already lost 55,000 jobs Jan.–Sept. 2001, before the attack, to the national dot-com downturn — a live example of why the Counterfactual Recovery Test in Section I separates disaster damage from a pre-existing trajectory	Not applicable — Lower Manhattan's residential population more than doubled in the two decades after 9/11 (roughly 23,000 in 2000 to 56,000–64,000 by the mid-2010s), and NYC metro population kept growing overall
Hurricane Katrina (2005) — New Orleans metro	Road Home (CDBG-DR funded) began disbursing more than one year after landfall	Metro area had regained 85% of pre-Katrina jobs by April 2010	GDP did not return to pre-storm level until 2015 — a full decade	Not yet, as of 2025 — the 7-parish metro sat at roughly 85% of its year-2000 population
Hurricane Sandy (2012) — NY-NJ region	Among the fastest CDBG-DR grants on record — full grant period completed in ~3.5 years, against a 4.7-year average across 10 disasters studied by the Urban Institute	Regional systems were not fundamentally disrupted for more than about a year (NYU ten-year retrospective); regional employment rebounded to pre-storm levels within ~2 months	Regional employment rebounded within roughly two months and sustained growth continued largely uninterrupted (NY Fed)	Not applicable at metro scale — NYU's ten-year retrospective found no lasting region-wide population effect; declines were confined to specific pockets (e.g., Ocean County, NJ shore towns), not the 20-million-plus region as a whole

Read across the six, one important pattern emerges: the cases suggest that outcomes track less with disaster severity or dollars received than with whether the disaster hit a metro that was already gaining population and economic momentum versus one that was not. Six cases cannot establish this conclusively, but the pattern is consistent enough to warrant the distinction this paper draws throughout. Charleston, the Bay Area, Miami-Dade, and the NY-NJ region were all growing metros before their disasters and simply resumed growth, in most cases within weeks to months. New Orleans was not, and twenty years of recovery spending have not been enough to reverse a trajectory that was arguably already set before Katrina made landfall. That distinction — restoring a community to its own baseline versus restoring it to a trajectory that was already declining — is precisely the difference the Counterfactual Recovery Test in Section I is built to catch, and precisely what a purely restoration-focused recovery cannot see.

This table shows how the trajectory of community development before an extreme event affects how it will perform after one occurs. The stressors, vulnerabilities, ongoing challenges, or success patterns that were in place before the extreme event are exposed and amplified by the response and recovery process. For communities in decline, extreme events can actually be an opportunity to re-think, re-frame, and re-position the community for future success. The key questions that community leaders always have to bear in mind is “what can we do to help current residents remain here and what reasons can we offer for potential new residents to come here?” “What will make our community a future magnet to attract more resources and build up our assets, well-being and quality of life?”

Why Restoration Wins by Default

Driver	How It Operates
Documented-loss reimbursement	Public Assistance and insurance both pay to replace what was damaged, as documented — not to build something better or different.
Duplication-of-benefits rules	Designed to prevent fraud, but they also penalize creative recombination of funding sources to achieve desired goals more efficiently.
Existing property rights and land-use plans	Zoning, parcel lines, and entitlements already in place make restoration the path of least legal resistance.
Sunk infrastructure	Roads, pipes, and utility easements are already there for the old footprint; redesigning them means paying twice.
Fragmented funding streams	A dozen agencies with a dozen eligibility rules is easiest to satisfy by rebuilding exactly what was lost, asset by asset, in isolation from every other asset.
Political pressure to reopen fast	Visible progress — the storefront that reopens, the school that reopens — is restoration by definition, and it is what constituents can see.
Fear that planning delays recovery	The most persistent driver, addressed directly in Section IV: the belief that discernment and speed are opposites, when in practice unexamined restoration often takes longer than a planned alternative.

As discussed in the ISD Stabilization paper: reconstruction spending can make headline economic indicators — sales tax receipts, construction employment, permit volume — look like recovery while the underlying organic economy, resident population, and small-business base continue to deteriorate underneath. This paper calls that the Reconstruction Mirage. It is a stabilization-phase phenomenon that does not end when stabilization ends; it simply becomes harder to see once federal attention has moved on and disaster-specific dashboards have been retired.

What Slow Recovery Costs a Region, Not Just a Community

Restoration bias has a cost beyond the community that suffered the disaster: the businesses, workers, and investment a slow-recovering community loses do not disappear from the regional economy — they relocate to whichever nearby region is functioning normally. Houston and Baton Rouge each absorbed roughly 100,000 permanent new residents from the Katrina diaspora, an infusion of human and financial capital those cities did not have to build themselves. New Orleans' loss was, in a real sense, its neighbors' gain. A regional or state official reading this paper should recognize that restoration bias in one jurisdiction is a standing competitive opportunity for every jurisdiction nearby — which is precisely the argument for building recovery capacity before it is needed.

Determinants of Recovery

Recoveries that have worked and the ones that didn't do not divide neatly along lines of disaster severity, wealth, or federal funding received. St. Bernard Parish and Sanibel Island both had strong infrastructure restoration; only one has strong overall retention two decades out, because the financing structure for housing — not the infrastructure work — determined the outcome. The pattern that recurs is not how much money arrived, but whether the community made a deliberate choice about what to rebuild, how, and for whom before the money's own rules made that choice by default. That is the argument for the discernment process in Section V, and it is the reason this paper exists. Several other strategies or realities that seem to work well include:

- Streamlining the regulatory process and waiving certain requirements – simplicity is undervalued as a tool.
- Strong social connections, community loyalty, heritage and legacy assets

- “Magnets” – economic, educational, health care, or other institutional or cultural anchors that make communities attractive

“Identity” and “purpose” are two concepts not generally associated with community development, but they are critically important. Money, plans, labor, and leadership are prerequisites, but they are not determinative. What is, are the drivers that make people want to be in a place over any other place they could be and inspire them to continue to build up the community for the future.

III. Recovery Support Functions: What Gets Recovered

The National Disaster Recovery Framework organizes federal recovery assistance around six Recovery Support Functions: Housing, Infrastructure Systems, Economic, Natural and Cultural Resources, Health and Social Services, and Community Planning and Capacity Building.

But naming the six RSFs is not the same as explaining what is actually at stake in each. Read through the developmental lens this paper opened with, each RSF is really a claim on one or more of the nine forms of community capital identified in the Community Assets Framework. Making that mapping explicit is what turns the RSFs from a federal org chart into a diagnostic tool.

Recovery Support Function	Primary Capital(s) at Stake	The Question It Answers
Community Planning and Capacity Building	Political Capital, Intellectual Capital	Does the jurisdiction have the institutional capacity to make and execute good decisions?
Housing	Property Capital, Human Capital	Do residents — especially the ones least able to wait — have a viable, affordable path back?
Infrastructure Systems	Physical Capital	Do the systems the community depends on work, can they carry the load, and will they still work under the next shock?
Economic	Economic Capital	Is the productive base really stronger?
Natural and Cultural Resources	Natural Capital, Legacy Capital	Has the community's landscape and identity survived recognizably, or only its footprint?
Health and Social Services	Human Capital, Social Capital	Can residents access care and support networks at the level they could before?

The six subsections below are deliberately short. Each is written as best-use-case-and-key-tradeoff, not an exhaustive instrument catalog. A recovery leader needs to know what exists and when to reach for it, not memorize a menu. Housing gets more space than the rest, because it is usually the central constraint and because the ethics of process speed, introduced in Section I, has to be operationalized.

Community Planning and Capacity Building

This function can be affected by missing information, lack of visibility about what different actors are doing, lack of baseline data, lack of visibility about diaspora mechanics (are displaced people permanently or only temporarily gone?), lack of visibility about state, federal and outside actors intentions, and other internal and stakeholder challenges.

Another important factor for the success or failure of this function is trust within the community. There are so many disconnects that can happen between community leadership and what residents experience on the ground. Leaders cannot assume that outreach tools like social media, billboards or radio spots are silver bullets. Leaders have to create an array of communication tools to meet the many different ways different people consume information.

Even communities with robust communications and online services have found this is not enough. Mobile units, open houses, recovery fairs and direct person-to-person contact are a critical component to building local capacity from the ground up. There is no substitute for human connection and this is even more important when recovering from a catastrophic, traumatic event.

Section V describes in detail tools that can assist with this process: structured discernment, a Recovery Charter, and the institutional capacity to carry a jurisdiction's own recovery decisions rather than defaulting to whatever a funding stream's default happens to be.

Housing

Housing is usually the recovery's binding constraint: workforce return, school enrollment, and small-business survival rarely outpace it. And Section I's argument about whom recovery is for lands hardest here. A process too slow or too document-intensive for pre-disaster residents to navigate does not merely delay their return; for low- and moderate-income households, elderly residents, and owners without clear title, it can foreclose return altogether. Three specific gaps deserve direct attention.

Legal infrastructure. Many pre-disaster residents — particularly generational owners in historically underinvested neighborhoods — cannot document clean title, either because property passed informally through heirs' property arrangements or because pre-disaster records were themselves incomplete. Title problems are not a paperwork inconvenience; they are a disqualifying condition for most federal and state recovery assistance, which requires an applicant to demonstrate ownership before compensation, repair funds, or buyout offers can be processed. A jurisdiction that has not built title-clearing and heirs'-property legal capacity before a disaster will spend the Discernment Window building it instead of using it — exactly the kind of avoidable delay Section IV's pre-disaster playbook is built to prevent.

Neighborhood-scale solutions. Federal recovery programs are overwhelmingly structured around the individual parcel: a homeowner's claim, a homeowner's compensation, a homeowner's rebuild. That structure is often a poor fit for the vulnerability-reduction investments that would do the most good. A HUD official once described the resulting absurdity plainly: the agency could authorize \$100,000 in individual compensation to each homeowner in a flood-prone neighborhood, but could not authorize \$10,000 for a shared neighborhood-scale flood mitigation feature that would have protected all of them, because some of the beneficiaries had incomes above the threshold that individual assistance requires. The fix is not more individual money; it is area-benefit eligibility and CDBG national-objective flexibility that let a jurisdiction spend once, at the neighborhood scale, instead of many times over at the parcel scale.

Land banks and experimental solutions like the Displaced Residential REIT concept. Some post-disaster lots are too vulnerable to rebuild on responsibly, and their owners — often long-term, low-income residents without other assets — have no realistic path to participate in whatever comes next on that land. ISD began developing one answer to this problem after Katrina, in response to conditions in New Orleans' Lower Ninth Ward: lots too vulnerable to responsibly rebuild, clouded or contested title, and owners with no financial cushion to wait out a resolution. The concept, which this paper calls the Displaced Residential REIT, works by exchanging clear title for equity in a real estate investment vehicle that then finances redevelopment of the aggregated area. Once title is contributed — which is why this instrument sits downstream of the legal-infrastructure work above, not ahead of it — the resident holds a claim on the REIT's value rather than a vacant, unbuildable lot, and can choose among three paths: exchange the equity for a unit in the redeveloped neighborhood, apply it as a down payment on a home elsewhere (including through a land bank), or simply hold it as a long-term asset. This ensures that local residents are the primary beneficiaries of the recovery and future redevelopment. A land bank can perform a similar aggregation function for parcels that will not be redeveloped as housing at all — turned instead to green infrastructure, buffer land, or future public use — but the REIT structure is specifically built to convert displacement into ownership rather than into a one-time payout.

This list is not exhaustive. Planners and community leaders have many alternative solutions. This came up after Superstorm Sandy when New Jersey townships were debating about what they should do. Some opted for enhanced natural defenses like replenishing sand dunes and requiring farther inland set-backs. Others considered physical infrastructure investments. Others explored regulatory solutions regarding housing rebuilds. Others considered buy-outs of vulnerable housing. Still others opted for no changes to their prior policies and investments and relied on market-based solutions. These solutions were driven by costs, voter preferences, homeowner preferences, and other gaps and constraints that were materially significant.

Infrastructure Systems

Infrastructure decisions should be evaluated on life-cycle cost and future hazard exposure, not replacement cost alone — the cheapest asset to rebuild today is frequently the most expensive one to rebuild again.

Strategy	Best Use Case	Key Tradeoff
Hardened rebuilding	Critical facilities that must stay in the same location (hospitals, water treatment)	Higher upfront cost for lower recurring loss
Distributed / redundant systems (microgrids, decentralized water)	Communities where a single point of failure took down essential services region-wide	More complex to operate and maintain than one centralized system
Nature-based infrastructure (wetlands, living shorelines)	Coastal and riverine exposure where hard infrastructure alone is insufficient	Slower to establish full protective function than engineered alternatives
Phased or consolidated reconstruction	Jurisdictions rebuilding a shrinking or shifting service footprint	Politically harder than rebuilding everything in place

Economic

The Economic RSF covers both immediate business continuity and the jurisdiction's longer development trajectory, and the two require different instruments. Immediate continuity leans on recoverable grants, bridge financing, shared business-recovery facilities, and local-procurement preferences that keep revenue circulating inside the affected area rather than leaking to outside contractors.

Longer-term recovery should blend into long-term economic development strategy, but there are some significant constraints. These include changes to physical infrastructure (important for logistics and supply chain considerations), damage to heritage assets (important for travel & tourism particularly), branding and image, sudden blight due to rapid bankruptcies and business closures, capital re-allocation, and other challenges.

A Comprehensive Economic Development Strategy and a disaster recovery plan address different questions: the recovery plan answers what this jurisdiction is rebuilding after this disaster, while the CEDS answers what this region's economic trajectory is, disaster or not. The two are related but not interchangeable and treating recovery planning as a substitute for updating the CEDS is a common and costly shortcut — it leaves a region's federally recognized economic development strategy frozen at its pre-disaster assumptions about industries, workforce, and target sites, even as the recovery itself is actively reshaping all three. A Post-Disaster CEDS Addendum updates the region's economic conditions, lost and surviving businesses, workforce and housing realities, target industries, and implementation partners in light of what the disaster actually changed, and gives EDA and regional partners a live document to fund against rather than a stale one. This is the mechanism, more than any single recovery program, that reconnects Section VIII's ordinary-governance transition back to a jurisdiction's normal economic development machinery once recovery-specific funding sunsets.

Natural and Cultural Resources

Natural systems such as wetlands, dunes, urban tree canopy frequently perform real protective work during the disaster itself, and rebuilding decisions that degrade them quietly increase the community's exposure to the next event even while every other indicator looks like recovery.

Cultural assets carry a related but distinct risk: historic districts, houses of worship, and gathering places are rarely anyone's single highest-dollar priority in a recovery portfolio, which is exactly why they are the assets most likely to be deferred indefinitely rather than formally retired. Another challenge is that these assets typically suffer the most when philanthropies and other funders are forced to re-allocate their support to other pressing community needs. Both deserve an explicit line in the Recovery Charter rather than a hope that they survive the process by default.

Health and Social Services

Recovery disrupts health and social-service delivery at the moment demand for both is highest — behavioral health needs in particular tend to rise well after the disaster itself has left the headlines, often coinciding with the point at which temporary support systems are winding down. This RSF is where a jurisdiction should expect a second, quieter wave of need arriving on a longer delay than the rest of the recovery timeline, and should staff and fund accordingly rather than treating health and social services as fully addressed once emergency sheltering ends.

IV. Improving Recovery Management

Everything in Section III describes what a recovery has to accomplish. This section describes the management discipline that determines whether it accomplishes those things on purpose or by accident — and, critically, argues that most of that discipline has to be built before the disaster, not during it.

Defining Goals Based on Realities

A recovery portfolio built against wished-for funding rather than realistic funding is not ambitious; it is unstable. Every objective a jurisdiction adopts should be tested against the Post-Disaster Reality Assessment introduced in Section V — what has actually changed on the ground — before it is tested against how much it would cost. Goals set before the reality assessment is complete tend to survive on paper long after the money that would have funded them has failed to materialize, which is its own quiet driver of the Reconstruction Mirage described in Section II.

Maximalist vs. Minimalist Objectives: Essential and Aspirational

Every recovery objective should be sorted, explicitly and early, into one of two tracks.

Track	Definition	Function
Essential / Must-Have (minimalist recovery agenda)	The objectives a jurisdiction can defend and fund even in a disappointing funding year	Sets the floor — what gets protected no matter what
Aspirational / Nice-to-Have (maximalist recovery agenda)	The aspirational, build-back-better objectives activated as funding allows	Sets the ceiling — what gets pursued when conditions permit

The value of the distinction is not the labeling exercise itself; it is what the labeling exercise forces a jurisdiction to do before a disaster ever occurs. An Essential (Must-Have) list assembled under pressure, three weeks after landfall, tends to reflect whichever advocacy was loudest that week. An Essential list assembled during normal operating conditions, reviewed and revised periodically the way a capital improvement plan is, reflects the jurisdiction's actual priorities — and gives Section VII's resource-constrained financing discipline something real to triage against.

Preparing Before the Disaster: The Recovery Playbook

Recovery readiness is not the same question as resilience. Resilience asks whether a community's assets are hardened against a shock; recovery readiness asks whether the community has an operational playbook for what happens after a shock arrives anyway. Both matter, and neither substitutes for the other.

A recovery playbook is scenario-based — built separately for the hazards a jurisdiction actually faces (flood, wildfire, hurricane, earthquake, and so on), since the Post-Disaster Reality Assessment and the Essential list look different depending on which one materializes. It should also include instruments and relationships negotiated in advance rather than improvised afterward: standing legal-aid partnerships for title clearing, land bank authorizing legislation already on the books rather than drafted from scratch, and philanthropic memoranda of understanding that specify how quickly first-loss or bridge capital can move once a disaster is declared. None of this is expensive to build during normal operating conditions. All of it is expensive to build during the Discernment Window, when it competes for attention with everything else described in Section V.

Efficiency at the Neighborhood Scale

A jurisdiction's pre-disaster playbook should include a standing position, developed with state and federal partners before it is needed, on securing area-benefit and national-objective flexibility wherever it can be negotiated — so that the choice between funding one household well or funding a whole neighborhood adequately is not being made for the first time under emergency conditions. Neighborhood-based solutions can be much less costly than individual case-by-case management that is most often the norm.

V. Structuring the Discernment Process

This is the Community Planning and Capacity Building RSF in practice — the institutional work that determines whether a jurisdiction's decisions about the other five RSFs happen deliberately or by accident.

The Discernment Window

An Introduction to Stabilization Management Principles compares its Retention Window to the Golden Hour in trauma medicine: a narrow period in which intervention still works, after which it largely doesn't. This paper's central planning device deserves its own anchor, drawn from a different discipline for a reason — recovery decisions are not primarily about speed of intervention, they are about the cost of changing course. Construction offers the better image: once concrete is poured, changes to a foundation are enormously expensive; before it is poured, they are nearly free. The Discernment Window is the period during which a decision can still be changed before it locks into contracts, land use, and permanent funding allocations — the point past which a jurisdiction's options convert from cheap to nearly irreversible. Where Stabilization's Retention Window holds open the community's ability to keep people, businesses, and institutions in place during the first weeks and months, the Discernment Window holds open its ability to choose what gets rebuilt and how — the two run concurrently, and the second does not wait for the first to close.

As “Where This Paper Fits” argues, this does not open on a single community-wide date. Early Discernment can and should begin as soon as emergency managers say that areas are safe for civilians. This helps to flag decisions are at risk of becoming irreversible and hold them open until the community as a whole reaches dynamic viability. Formal Discernment — the comprehensive, asset-by-asset work of the Matrix and the Charter below — intensifies once stabilization has been achieved and it is possible to have a clear understanding of needs, liabilities, assets and opportunities, but a jurisdiction that waits for a clean handoff before starting any discernment work at all has usually already lost several of its most consequential decisions to default. In short: Early Discernment preserves decision space during Stabilization; Formal Discernment evaluates the full portfolio once dynamic viability is reached. Both stages run on the same underlying logic: preserve the option to choose, for as long as it's affordable to do so.

The most common objection to structured discernment is some version of “we don't have time to stop and plan.” The objection misstates the choice. The real choice is not between planning and action. The real choice is between structured discernment conducted alongside that urgent action, and unexamined path dependency created by thousands of disconnected administrative decisions, each individually reasonable, that collectively pour the foundation before anyone decided what should be built on it.

Another objection is lack of budget. During the 2000s-2010s, the US Chamber of Commerce and the International Economic Development Council set up a program to bring economic development experts from outside the disaster zone to independently evaluate economic developmental needs. This was embraced by local leaders because it created independent third-party assessments of baseline needs, and was very helpful to federal policy makers determining budgets and allocation of resources. While this program does not exist formally today, local leaders should consider a similar outside “development audit” if they do not have the resources to do it themselves.

Recognizing the Window: Signals, not a Single Switch

Because discernment runs concurrently with stabilization rather than waiting for it to end, a Recovery Coordinator needs signals to judge readiness asset by asset and neighborhood by neighborhood, not one community-wide on/off switch. None of these thresholds needs to be met in full before Early Discernment starts on a given decision; they are judgment aids, not gates.

Direction	Signals Worth Watching
Early Discernment can start now	A specific asset or decision has an approaching commitment deadline (a contract, a permitting decision, a funding application); the jurisdiction has at least a preliminary view of that asset's damage and options; someone has been assigned to hold the decision open

Formal, portfolio-wide Discernment is ready to intensify	Essential services are functioning at a sustainable interim level; temporary housing capacity is sufficient to prevent continuing involuntary displacement; government itself is functioning well enough to plan, procure, and engage residents; population movement is understood well enough to inform permanent decisions — in short, Stabilization's dynamic viability
A specific decision is closing	The contract is about to be signed, the land-use vote is scheduled, or the funding commitment is about to be locked — whichever comes first for that asset

An Irreversible Decisions Register is the practical instrument for tracking this asset by asset: a running list of upcoming commitments, why each is hard to reverse once made, its default outcome if no deliberate choice is made, and who owns the decision. A jurisdiction should start this register on Day 1 of Stabilization, not wait for Day 30 of formal recovery — it is the single cheapest tool in this paper relative to what it protects.

Post-Disaster Reality Assessment

Before deciding what to do, a jurisdiction has to know what has actually changed. The assessment below is deliberately a checklist, not a research agenda — most items are answerable from data a mid-sized planning department, assessor's office, or chamber of commerce already has on hand.

Category	What to Check
Physical and environmental	Altered waterways or coastlines, new erosion or contamination, changed hazard maps, lost natural protective barriers
Demographic and social	Displacement and return intentions, school enrollment, workforce availability, diaspora formation
Economic	Which firms are viable versus not, lost industries, insurance and credit availability, reconstruction-market price distortions
Fiscal and institutional	Revenue losses, new debt and maintenance liabilities, staffing and grant-management capacity
Identity and legacy	Lost cultural landmarks, historic districts, gathering places, heritage and tourism assets

The Restore / Harden / Redesign / Relocate / Repurpose / Retire / Create Matrix

This is the paper's signature diagnostic tool: for every major asset identified in the Reality Assessment, a deliberate decision among seven postures, made once and recorded in the Recovery Charter rather than left to whichever posture happens to be administratively easiest.

Decision	Meaning
Restore	Replace substantially as before
Harden	Retain the same basic function, reduce its vulnerability
Redesign	Change scale, technology, configuration, or operating model
Relocate	Preserve the function in a safer or more viable location
Repurpose	Assign the asset a new future use

Retire	Do not rebuild
Create	Develop a capability the community previously lacked

The Matrix tells a jurisdiction what posture fits each asset. It does not by itself tell a jurisdiction which asset to fund first when the portfolio has far more decisions than the Essential funding floor can cover in year one — that is a sequencing problem, addressed next.

A Simple Decision Tree

The Matrix names seven postures but doesn't by itself tell a team which one applies to a given asset. The sequence below is not a substitute for judgment — it's a starting order for the conversation, so a team facing sixty assets isn't reinventing the logic from scratch each time.

Step	Question	If Yes	If No
1	Does the community still need this function at all?	Continue to Step 2	Is a different capability needed in its place? If yes — Create. If no — Retire.
2	Is the current site or form safe and viable going forward?	Continue to Step 3	Can the function be preserved in a safer or more viable location? If yes — Relocate. If no, continue to Step 3 anyway — hardening or redesign may still apply where relocation isn't feasible.
3	Can vulnerability be adequately reduced without changing scale, technology, or operating model?	Harden	Would changing scale, technology, configuration, or operating model resolve it? If yes — Redesign.
4	Would the community be better served by assigning this asset an entirely different future use?	Repurpose	Continue to Step 5
5	None of the above applied — rebuild substantially as before.	Restore	(This step has no 'no' branch — by elimination, Restore is the default only after the other six have been actively ruled out, not chosen by default because no one asked the earlier questions.)

Sequencing Under Scarcity: A Weighted Scoring Rubric

Most jurisdictions leaving the Matrix exercise face a version of the same problem: dozens of assets, funding for a handful. The rubric below scores each asset on five criteria, 1 to 5, and multiplies each score by a locally set weight before summing — not a formula precise enough to argue over decimal points, but precise enough to force an explicit conversation about what the jurisdiction actually values most, rather than leaving that conversation implicit and re-litigated project by project.

Scoring Criterion	1 (Low)	5 (High)	Suggested Starting Weight
Life-safety and risk reduction	No meaningful exposure reduction	Directly removes people from a known, severe hazard	25%
Retention impact	Minimal effect on who can stay	Determines whether a significant population or employer base can remain	20%

Dependency	Stands alone; nothing else waits on it	Multiple other projects cannot proceed until this one does	20%
Distributional effect	Works against Charter distributional commitments	Directly advances Charter distributional commitments	20%
Financial feasibility	No identified funding source	Committed or highly likely capital already in hand	15%

Treat the starting weights as exactly that — a starting point, not a standard. A jurisdiction with a severe, unresolved hazard exposure might weight life-safety at 40% and turn down financial feasibility's weight accordingly; a jurisdiction focused on stemming population loss might weight retention impact higher. The weights themselves are a values decision, and they belong in the Recovery Charter alongside the other distributional commitments — set them deliberately and record them, rather than letting the default 20-20-20-20-20 stand in as if it were neutral. What should not vary jurisdiction to jurisdiction is the discipline of scoring explicitly and showing the math, which is what makes the sequencing decision defensible when a passed-over project's advocates ask why.

Dependency deserves particular attention regardless of its exact weight, because recovery projects rarely fail in isolation — they fail because housing waits on utilities, workforce return waits on housing, and business reopening waits on customers who are still waiting on housing. Enabling projects — the ones that unlock several others rather than standing alone — should generally sequence first even when they are not the most visible or the most politically popular choice, precisely because their value doesn't show up until the projects downstream of them become possible.

Who Decides What

Different decisions call for different kinds of input and treating them all as if they call for the same process — either a purely technical determination or a purely democratic one — is a reliable way to produce decisions nobody trusts.

Input Type	Where It Applies
Technical analysis	Hazards, engineering, infrastructure, environmental conditions
Market analysis	Housing demand, industry viability, population and commercial trends
Democratic deliberation	Values, identity, priorities, acceptable tradeoffs
Resident experience	Displacement realities, neighborhood-specific needs, barriers to return
Professional judgment	Planning, design, finance, sequencing
Elected authority	Final accountability for major tradeoffs

Guard deliberately against consultation fatigue, domination of the process by whichever interest is best organized, exclusion of displaced residents who are by definition harder to reach than residents still in place, and engagement processes so open-ended they prevent implementation altogether. Communication through this process is not a courtesy — residents deserve clear, ongoing insight into how recovery decisions are being made and why, not just an announcement once they are final. That standard applies throughout the rest of this paper, not only here: it returns in Section VIII's scorecard and Section IX's implementation guidance. For any decision with a meaningful distributional effect, require and document that displaced or under-represented residents' input was specifically sought — not just that a public comment period was technically open to everyone; a Recovery Coordinator who can point to a standing rule rather than defend a decision from scratch each time it's challenged holds up better politically, too.

The Recovery Charter

The Recovery Charter is a concise governing document, produced through the discernment process above and adopted before the detailed recovery portfolio in Section VI, that pins down ten things a jurisdiction would otherwise decide piecemeal, asset by asset, without ever writing the whole picture down in one place.

- Post-disaster conditions, as established by the Reality Assessment
- The desired development trajectory, tested against the Counterfactual Recovery Test in Section I
- Assets and populations the community commits to retain
- Risks the community will no longer accept
- Recovery priorities, sorted into Essential and Aspirational objectives per Section IV
- Restore/Harden/Redesign/Relocate/Repurpose/Retire/Create decisions for major assets
- Distributional commitments — who this recovery is for, made explicit
- Fiscal constraints
- Governance responsibilities, including the Recovery Coordinator role in Section IX
- Metrics and review schedule, carried forward into Section VIII

The Charter is not the recovery plan. It governs the recovery plan — the plan can and should change as conditions change; the Charter's commitments should not, absent a documented reason recorded in the Annual Trajectory Review.

VI. Coordinating the Recovery Stack: Government, Market, and VOAD Visibility

An Introduction to Stabilization Management Principles names a recurring failure mode during Stabilization: incoming philanthropic and volunteer organizations arrive with good intentions, real resources, and no shared visibility into who else is doing what — producing clumping, where the same visible, well-publicized need gets served by five organizations at once, and gapping, where an equally real but less visible need gets served by none. That paper's answer is a designated Philanthropic Liaison built into the emergency management structure before the disaster. The same disease persists into long-term recovery, on a longer timeline and with higher stakes, and it deserves the same direct treatment here rather than an assumption that Stabilization's fix already covers it.

Three Layers, One Blind Spot

A community in long-term recovery typically has three parallel systems of assistance operating at once, none of which routinely sees the other two.

Layer	Who's In It	Typical Failure Mode
Government baseline	FEMA, HUD, SBA, state recovery offices, local government programs	Slow but comprehensive on paper; opaque to residents and to the other two layers in practice
Market-based development	Private developers, lenders, insurers, employers making independent investment decisions	Efficient where it operates, but goes wherever returns are, not wherever need is
VOAD and philanthropic	Voluntary organizations active in disaster, long-term recovery groups, faith-based and community organizations	Fast, flexible, and values-driven — but episodic, criteria vary organization to organization, and funding runs out unpredictably

Each layer, working alone, is a reasonable response to its own incentives and constraints. The clumping and gapping problem is not caused by any single layer behaving badly — it is caused by none of the three layers being able to see what the other two have already done for a given household, business, or neighborhood.

Leveraging Whole-of-Society Capacity

Visibility across the three layers matters more once a jurisdiction understands how much capacity actually sits inside the second and third layers — capacity most recovery leaders underuse simply because they don't know how to ask for it. VOAD and long-term recovery organizations can mobilize volunteer labor at a scale no government workforce can match on its own; a jurisdiction that treats VOADs purely as a source of episodic case-by-case assistance, rather than as a labor-mobilization partner to be planned around deliberately, is leaving real capacity on the table.

The private sector is a similarly underused partner, and for a specific, counterintuitive reason: cash is often one of the hardest things for a corporation to move quickly, because it typically requires board-level approval, legal review, and budget-cycle timing that don't bend for a disaster's schedule. What corporations frequently can move fast — and what most jurisdictions don't think to ask for — is everything else: logistics networks, warehousing and distribution capacity, specialized equipment, professional expertise on secondment, and supply-chain relationships built over years that a jurisdiction could never assemble from scratch under emergency conditions. A Recovery Coordinator's private-sector outreach should lead with a specific capability ask — warehouse space, a fleet of trucks, engineering staff-hours, procurement expertise — rather than a general request for funding; it is usually the faster path to a yes, and often the more valuable one.

Visibility and VOADs

This is not an argument for centralizing control over independent VOAD decision-making, which would be neither realistic nor desirable — much of what makes voluntary organizations effective is precisely that they can move on their own values and their own timeline. What it requires instead is a shared information layer: a common, low-friction way for government programs, market actors where willing, and VOAD organizations to see who has already been served, by whom, and what remains unaddressed. Visibility does not require any layer to change what it funds or how it decides; it only requires that the other two layers can see the decision once it's made.

Operationalizing Visibility: The Recovery Dashboard

In the near term, most jurisdictions do not need a purpose-built platform to start closing this gap — they need a dashboard customized to their own recovery priorities and populated with data the government and VOAD layers already collect but do not currently share, tracking assistance by household or business against the categories in Section III's RSF taxonomy so that gaps and overlaps become visible rather than discovered by accident months later. ISD is exploring a longer-term, shared version of this capability through a prospective joint venture with StateBook — building toward a common, interoperable model rather than each jurisdiction building its own from scratch. That work is still in development and is noted here as a direction, not a commitment; jurisdictions acting now should build the near-term, locally customized version rather than waiting on it. All visibility functions must comply with applicable privacy, confidentiality, and statutory data-sharing requirements; the goal is shared awareness of what has been done, not a shared case-management system with unrestricted access to household-level detail.

VII. Financing Recovery Beyond CDBG-DR

The CDBG-DR Constraint

CDBG-DR remains indispensable in most major disasters, and this paper is not an argument against it. It is, however, an argument against treating it as the recovery capital system rather than one part of one. The constraints are structural, not administrative failures: CDBG-DR requires a special congressional appropriation after every disaster, with no standing authorization a jurisdiction can count on in advance; Section II's research found CDBG-DR grants took 4.7 years to complete on average across ten disasters studied by the Urban Institute, with the fastest (Sandy, Colorado floods) at 3.5 years and the slowest (Ike, Gustav) at 5.9; and duplication-of-benefits rules, while necessary to prevent fraud, penalize the kind of creative recombination of funding sources that Section III's neighborhood-scale solutions often require. A jurisdiction that designs its recovery strategy assuming CDBG-DR will arrive, and arrive on a predictable timeline, is designing against a program that has never behaved that way for anyone.

The Alternative Recovery Capital Stack

Organizing available capital by purpose, rather than by which agency offers it, makes it easier to see where a jurisdiction actually has options.

Category	Purpose	Examples
Rapid and bridge capital	Move money before federal funding arrives	State appropriations, parametric insurance, CDFI liquidity, philanthropic guarantees
Predevelopment capital	Fund planning before construction capital is available	Planning grants, recoverable philanthropic grants, program-related investments
Permanent reconstruction capital	Fund the actual rebuild	Municipal and revenue bonds, LIHTC, NMTC, Historic Tax Credits, resilience bonds
Risk-absorbing capital	Make other capital sources willing to participate	First-loss philanthropy, guarantees, loan-loss reserves, reinsurance
Community-ownership capital	Keep value with residents rather than outside investors	Community land trusts, the Displaced Residential REIT (Section III), local recovery bonds

Resource-Constrained Financing Discipline

A recovery plan built against hoped-for funding is not ambitious. It is unstable. Planning against realistically anticipated funding raises, rather than lowers, the bar for how that funding gets used: it favors dual-use and multi-functional solutions over single-purpose ones (a flood-storage park over a single-purpose detention basin), leverages market incentives ahead of subsidy wherever private capital will move on its own with modest de-risking, and favors financial instruments that bring anticipated future funding forward — revenue-anticipation structures, philanthropic guarantees against expected appropriations — rather than instruments that simply wait for it.

The State Role

As referenced in the ISD *Empowering States for a Resilient Future* white paper, states that build Disaster Financing Ecosystems — the second of that paper's eight pillars — give their communities rapid and bridge capital, and predevelopment capital in particular, that does not depend on a congressional appropriation timeline at all. A jurisdiction whose state has not yet built that capacity should treat state-level advocacy for it as part of its own pre-disaster playbook from Section IV, not as someone else's problem to solve.

VIII. Measuring Recovery and Staying on Course

The Long-Term Recovery Scorecard

Mapped to the five dimensions from Section I, so that measurement and the definition of success are the same document rather than two different ones.

Dimension	What Success Looks Like
Safety and Risk Reduction	Exposure measurably reduced; rebuilt assets more insurable than before, not merely rebuilt
Institutional Capacity	Planning, data, procurement, and grant-management capacity stronger after recovery than before — not consumed and left to rebuild again
Developmental Trajectory	Performance against the Counterfactual Recovery Test's trajectory and strategic-potential benchmarks, not just the pre-disaster baseline
Retention and Distribution	Resident, renter, and owner return tracked and reported by income band; small-landlord and heirs'-property recovery tracked specifically, not folded into an aggregate
Identity and Legacy	Civic anchors and cultural assets restored or deliberately repurposed — not silently lost to deferral

The Annual Trajectory Review

Once a year, the Recovery Coordinator convenes a review against seven standing questions, functioning as adaptive management rather than routine progress reporting.

- Are the Recovery Charter's assumptions still valid?
- Is the recovery portfolio actually improving the intended trajectory?
- Which populations or places are being left behind?
- What unintended consequences have appeared?
- Is the Reconstruction Mirage masking underlying weakness?
- Are financing assumptions still realistic?
- Should specific projects be accelerated, modified, suspended, or retired?

Transparency as a Standing Indicator

Section V argued that communication throughout the discernment process is not a courtesy but a standing obligation; Section VI argued that visibility across the recovery stack is what prevents clumping and gapping. The scorecard above should carry an explicit transparency indicator — whether residents can actually find out, in plain language, what has been decided and why — rather than treating communication as a separate public-relations function disconnected from whether recovery is measurably working.

IX. Governance and Implementation

Who Owns the Process

Accountability for recovery belongs to the senior elected or appointed official of the impacted jurisdiction — that does not change and should not be delegated away. But accountability for the outcome is not the same job as day-to-day execution of the discernment process, the Charter, the recovery-stack visibility function, and everything else this paper describes. That execution needs a named Recovery Coordinator, the same way Stabilization needs a named Stabilization Coordinator: in the executive's office for larger jurisdictions, at the council of governments or regional planning district level for small towns and rural counties that cannot staff the role alone.

The Three-Coordinator Spine

A community moving through a full disaster cycle should not have to invent its management structure three separate times. This paper, An Introduction to Stabilization Management Principles, and The Resilience Executive describe three roles that are best understood as one continuous line of institutional capacity, not three disconnected positions competing for the same organization chart line.

Role	Primary Focus	Central Question
Stabilization Coordinator	Retention — the Retention Window	Are we retaining the people, businesses, and confidence that make recovery possible?
Recovery Coordinator	Deliberate choice — the Discernment Window	Are we resuming a stronger development trajectory, deliberately?
Chief Resilience Officer	Continuous, before, during, and after both windows	Is this community's risk position, in good times and bad, being actively managed?

These three roles are best pictured as overlapping, not sequential — consistent with “Where This Paper Fits” and the concurrency logic behind Early and Formal Discernment. In a large or unevenly damaged disaster zone, a Stabilization Coordinator can be actively retaining population in one neighborhood while a Recovery Coordinator is already running Early Discernment, and the CRO is continuously managing risk community-wide throughout. Treat the spine as three roles in simultaneous operation with shifting relative weight, not a relay where one office's work must finish before the next one's can start.

What matters here is the eventual transition: the Recovery Coordinator's role should have an explicit sunset built into the Recovery Charter from the start, transitioning its remaining functions to the CRO's continuous mandate once the exit criteria in Section I are met, rather than lingering as a permanent parallel structure once recovery-specific funding and attention have moved on.

The Recovery Coordinator's core functions are chairing the discernment process in Section V, holding the Recovery Charter, and running the recovery-stack visibility function described in Section VI — three jobs that are difficult to do well if split across three different offices with three different reporting lines.

Recovery Coordinator: Required Authorities

Responsibility without authority is not governance. A Recovery Coordinator who can only recommend, and who has no standing to compel information or flag a decision for reconsideration, will produce a Recovery Charter that reads well and gets ignored. At minimum, the role needs:

- Authority to require any agency or department handling recovery funds to report project status and timeline on a standing schedule
- Authority to convene and chair portfolio and Charter reviews, including the Annual Trajectory Review
- Authority to flag a pending decision for executive reconsideration when it risks becoming irreversible before it has gone through the Matrix

- Co-signature or comparable authority over predevelopment and bridge-capital commitments made under Section VII
- Authority to maintain the official version of the Strategic Recovery Portfolio and the Irreversible Decisions Register
- Authority to require documentation of alternative postures considered, per the Matrix, before any project above a locally defined dollar threshold proceeds to final design

None of this displaces the authority of elected officials, planning commissions, public works, or finance departments — the Coordinator's job is to make sure the right decision reaches the right authority before it defaults, not to make the decision alone.

Roles and Responsibilities

Level	Primary Responsibilities
Local government	Community objectives, land-use decisions, resident engagement, local project selection, distributional accountability
State government	Financing architecture, technical capacity, surge personnel, regulatory flexibility, regional coordination
Federal government	Supporting locally adopted recovery objectives, coordinating program timelines, funding planning and predevelopment, evaluating outcomes rather than only dollars obligated
Regional, private, philanthropic, and VOAD partners	EDDs and COGs, CDFIs, foundations, anchor institutions, VOAD and long-term recovery groups — participants in the recovery stack described in Section VI, not substitutes for it

The Political Realities of Recovery

Recovery is intensely political, and pretending otherwise is itself a failure mode. A recovery leader should expect several fights to recur across nearly every disaster, and should expect them early:

- Speed versus discernment — visible reopening now, against holding a decision open a while longer
- Buyouts and managed retreat versus property rights — relocation read as government overreach regardless of the hazard case for it
- Distributional commitments versus politically connected interests — LMI and displaced-resident priorities against better-connected property owners and businesses
- Philanthropic and VOAD priorities versus locally set priorities — well-resourced outside partners arriving with their own criteria
- Who gets a seat at the table — disputes over whose input counts as “community input” when displaced residents are hardest to reach
- Local versus regional priorities — when regional infrastructure decisions conflict with neighborhood-level preferences

Communicating tradeoffs well means naming the tradeoff out loud rather than presenting a decision as costless — a Coordinator who says “we chose to relocate this facility, which costs more and takes longer, because the alternative left it exposed to a repeat of what just happened” is more durable than one who tries to have it both ways. The same discipline works on philanthropic and VOAD partners: showing them the adopted Charter and Essential list before they design a program is a stronger position than declining or reshaping an offer after it's already been announced publicly.

Quick, visible action buys room to hold harder decisions open — debris clearance and fast-tracking the Matrix calls that were never really in question let a jurisdiction show progress within 30 to 60 days even while more contested decisions elsewhere are still properly working through Formal Discernment. Different assets can be at different points in the process at the same time.

The First 180 Days

Early Discernment and the Irreversible Decisions Register from Section V should already be under way in parts of the community well before Day 1 below; this table marks the point at which formal, portfolio-wide recovery management takes over as the primary mode, not the first day any discernment work happens.

Checkpoint	What Must Be True
Day 30	Recovery Coordinator named. Post-Disaster Reality Assessment launched. Essential (Must-Have) list from the pre-disaster playbook activated as the funding floor.
Day 60	Reality Assessment substantially complete. Imminent irreversible decisions identified and, where possible, held open. Displaced-resident engagement channel established.
Day 90	Restore/Harden/Redesign/Relocate/Repurpose/Retire/Create Matrix drafted for major assets. Tradeoffs documented. Predevelopment capital secured.
Day 180	Recovery Charter adopted. Strategic Recovery Portfolio sequenced. Recovery-stack visibility function operating. Baseline scorecard published.

Capacity-Tiered Guidance

Jurisdiction Type	What Changes
Major metro	Sufficient staff capacity to run all functions in-house; risk is coordination complexity across many departments and neighborhoods, not capacity scarcity
Mid-size city or county	Core functions staffed directly; specialized capacity (legal title work, financial structuring) often brought in from state or regional partners
Rural county or small town	Recovery Coordinator role usually cannot be a dedicated full-time position; regional COGs and EDDs should be treated as first-class recovery actors, not afterthoughts, per Section VI's coordination logic
Tribal government	Government-to-government relationships and distinct legal frameworks for land and title require federal and state partners to adapt standard processes rather than the reverse
State-led recovery	Applies when a disaster spans many small jurisdictions simultaneously; the state effectively runs the Recovery Coordinator function as a shared regional service

Communication remains a running requirement across every tier above, not a checkbox completed once at Day 180 — the standard set in Sections V and VIII applies regardless of jurisdiction size.

X. Common Failure Modes

Practitioners recognize trouble faster from a “don't do this” list than from another statement of principles. The seven modes below are not new ideas — each is named and addressed elsewhere in this paper — but naming them together, as ways recovery goes wrong, has teaching value the scattered treatment doesn't.

Failure Mode	What It Looks Like	Where This Paper Addresses It
Restoration Default	Vulnerabilities get rebuilt automatically because no one made a deliberate choice not to	Sections I–II, the Matrix in Section V
Reconstruction Mirage	Construction spending and permit activity are mistaken for genuine economic recovery	Section II
Funding-Led Planning	CDBG-DR or grant eligibility rules quietly become the strategy, instead of the Charter determining what capital gets pursued	Section VII
Overcommitting Before the Reality Assessment	Goals and public commitments get set before anyone actually knows what changed	Section IV
Displacement Lockout	Pre-disaster residents, especially LMI households, lose the ability to return while government processes continue	Section I, Section III's Housing treatment
Capacity Exhaustion	The jurisdiction's institutional capacity gets consumed administering recovery rather than strengthened by doing it	Section IX's capacity-tiered guidance
Recovery Permanence	Temporary recovery structures never sunset — they become permanent bureaucracy instead of handing off to normal governance	Section IX's Recovery Coordinator sunset into the CRO

A useful discipline for the Annual Trajectory Review in Section VIII: ask explicitly, each year, whether any of these seven modes is currently underway, rather than waiting for it to show up as a missed target on the Scorecard.

Conclusion

Managing extreme events is not an interruption of community development, it is part of the brief. Communities that avoid catastrophic outcomes in the first place are the biggest winners, but second place goes to those community leaders who can turn crises into opportunities to adapt, strengthen, and transform. Long-term recovery succeeds when a community has not merely repaired the interruption but deliberately resumed development on a safer, stronger, more viable, and more inclusive trajectory than the one the disaster interrupted. In cases where that pre-disaster trajectory was itself already declining, success can be defined as a better trajectory than restoration alone would have produced.

Recovery is not the destination. It is the temporary discipline by which a damaged community decides what future it is trying to build, and mobilizes the capital, institutions, legitimacy, and implementation capacity required to reach it. The Discernment Window closes eventually, asset by asset, whether or not a community used it deliberately. This paper exists so that more communities use it deliberately.

This is the third field manual in the series, following *The Resilience Executive* and *An Introduction to Stabilization Management Principles*, with *Empowering States for a Resilient Future* and the *Community Assets Framework* supplying the financing architecture and capital taxonomy this paper applies. Together they make one continuous argument: that disaster management is not a discipline apart from community development, but one of its most consequential special cases. Communities are always either building assets or losing them. The three-coordinator spine described in Section IX exists to make sure that fact is managed on purpose, in every phase, rather than discovered by accident in the worst one.

This is version 1.0 of this framework. Several concepts introduced here — the Discernment Window's boundaries in particular — are offered as working hypotheses to guide planning and future research, not as validated findings, and ISD intends to sharpen them with further field documentation.

Respectfully Submitted

Stephen Jordan, President & CEO, Institute for Sustainable Development.

Appendix A — Recovery Charter Template

A jurisdiction should complete this template through the discernment process described in Section V, not before it — each element depends on the Post-Disaster Reality Assessment and the Matrix in Appendix B. Adopt it formally, with the same seriousness as a budget or a comprehensive plan; it governs both.

Charter Element	Jurisdiction's Entry
1. Post-disaster conditions	[Summarize findings from the Post-Disaster Reality Assessment]
2. Desired development trajectory	[State the trajectory this recovery is aimed at, tested against the Counterfactual Recovery Test]
3. Assets and populations to retain	[Name them specifically — vague commitments are not commitments]
4. Risks no longer acceptable	[What this jurisdiction will not rebuild into again]
5. Recovery priorities	[Reference the Essential / Aspirational worksheet, Appendix E]
6. Restore/Harden/Redesign/Relocate/Repurpose/Retire/Create decisions	[Reference the completed Matrix, Appendix B]
7. Distributional commitments	[Who this recovery is for, stated explicitly, including LMI and heirs'-property residents specifically]
8. Fiscal constraints	[Realistically anticipated funding, per Section VII]
9. Governance responsibilities	[Name the Recovery Coordinator and reporting line]
10. Metrics and review schedule	[Reference the Scorecard, Appendix F, and the Annual Trajectory Review date]

Adopted by: _____ Date: _____ Next scheduled review: _____

Appendix B — The Restore / Harden / Redesign / Relocate / Repurpose / Retire / Create Matrix (Worksheet)

Complete one row per major asset or system identified in the Post-Disaster Reality Assessment. The worked example in the first row illustrates the level of specificity the worksheet is built for; blank rows follow for the jurisdiction's own use.

Asset / System	RSF Category	Decision	Rationale
Example: Riverside neighborhood, 40 homes in mapped floodway	Housing	Relocate	Repeated flood losses exceed cumulative value; land banked for green infrastructure per Section III

Decision key: Restore — replace substantially as before. Harden — retain function, reduce vulnerability. Redesign — change scale, technology, or operating model. Relocate — preserve function in a safer location. Repurpose — assign a new future use. Retire — do not rebuild. Create — develop a capability the community previously lacked.

Appendix C — Navigating Existing Tools

A quick reference to what already exists, before a jurisdiction spends discernment-window time and energy building something new to solve a problem an existing program already addresses.

CDBG-DR Quick Reference

Feature	What to Expect
Administering agency	HUD, through a state or local grantee
How it's triggered	Requires a special congressional appropriation after each disaster — no standing authorization
Typical timeline	4.7 years average to full completion across 10 disasters studied (Urban Institute); first-dollar disbursement has historically taken a year or more
Best used for	Permanent reconstruction capital and gap financing after other federal sources (FEMA, SBA) are exhausted
Key constraint	Duplication-of-benefits rules; LMI national-objective targeting; individual-parcel structure discussed in Section III

RSF Federal Coordinating Agencies

Each Recovery Support Function has a designated federal coordinating agency under the National Disaster Recovery Framework — the first call for a jurisdiction trying to find its way into the right federal conversation.

Recovery Support Function	Federal Coordinating Agency
Housing	HUD
Infrastructure Systems	U.S. Army Corps of Engineers
Economic	Department of Commerce (Economic Development Administration)
Natural and Cultural Resources	Department of the Interior
Health and Social Services	Department of Health and Human Services
Community Planning and Capacity Building	FEMA

Other Outside Support

Source	What It Typically Offers
State government	Bridge financing, technical capacity, regulatory flexibility — see Section VII and Empowering States for a Resilient Future's Eight Pillars
Private sector	Anchor-employer retention commitments, bank and CDFI lending, insurance and reinsurance capacity
Philanthropy	First-loss capital, recoverable grants, predevelopment funding, VOAD-network coordination per Section VI

Appendix D — Building New Tools

Instruments that do not yet exist in most jurisdictions' toolkits, described here at the level of a concept sheet rather than a fully engineered program — each needs legal, financial, and jurisdiction-specific structuring before deployment.

The Displaced Residential REIT

Element	Description
Purpose	Convert displacement from vulnerable, contested, or unbuildable lots into ownership rather than a one-time payout, for residents — often long-term, low-income — who otherwise have no realistic path to participate in what comes next on that land
Prerequisite	Clear title. This instrument sits downstream of the legal-infrastructure work in Section III (title clearing, heirs'-property resolution) — it cannot be the mechanism that resolves title, only what happens after title is resolved
Participation	Voluntary. The REIT is one option alongside a conventional buyout, land bank, or hold-and-rebuild path — never a mandatory condition of assistance
Mechanics	Resident exchanges clear title for equity in a real estate investment vehicle; the REIT aggregates parcels and finances redevelopment of the area
Resident options	(1) Exchange equity for a unit in the redeveloped neighborhood; (2) apply equity as a down payment elsewhere, including through a land bank; (3) hold the equity as a long-term asset
Origin	Developed by ISD following Hurricane Katrina in response to conditions in New Orleans' Lower Ninth Ward
Open questions	Governance and fiduciary structure, valuation methodology at contribution, tax treatment of the equity exchange, and relationship to existing land bank authority — all jurisdiction- and state-law-specific

Alternative Financing Instruments

Beyond the Capital Stack in Section VII, two instrument types deserve active development rather than passive waiting: forward-funding structures that let a jurisdiction borrow against realistically anticipated future appropriations (revenue-anticipation notes, philanthropic guarantees pledged against expected federal allocations) and dual-use infrastructure financing that lets a single capital source fund an asset serving two RSFs at once (a stormwater park financed partly as Infrastructure Systems capital and partly as Natural and Cultural Resources capital, for example).

The Data-Driven Recovery Dashboard

Near term: a jurisdiction-customized dashboard, built on data the government and VOAD layers already collect, tracking assistance by household or business against the six RSF categories in Section III — the near-term tool described in Section VI. Longer term: ISD is exploring a shared, interoperable version through a prospective joint venture with StateBook, in the same spirit as the Resilience Data Framework already described in Empowering States for a Resilient Future's fifth pillar. That work is in development, not yet available, and jurisdictions should build the near-term version rather than wait on it.

Appendix E — Essential / Aspirational (Must-Have / Nice-to-Have) Playbook Worksheet

Complete during normal operating conditions, per Section IV, and revisit on a standing schedule — not assembled for the first time under pressure. One row per RSF.

RSF	Essential / Must-Have (Minimalist)	Aspirational / Nice-to-Have (Maximalist)
Housing		
Infrastructure Systems		
Economic		
Natural and Cultural Resources		
Health and Social Services		
Community Planning and Capacity Building		

Review cycle: annually, alongside the jurisdiction's capital improvement plan. Owner: the jurisdiction's Chief Resilience Officer under normal operating conditions, per The Resilience Executive.

Appendix F — Long-Term Recovery Scorecard (Tracking Tool)

An operational expansion of Section VIII's scorecard, with illustrative indicators per dimension. A jurisdiction should adapt the indicator list to what it can actually measure, not import this list unmodified.

Dimension	Illustrative Indicators	Baseline	Current	Target
Safety and Risk Reduction	Insurance availability and pricing; % of rebuilt structures meeting hardened standards			
Institutional Capacity	Grant-management staffing; audit findings; planning-department capacity			
Developmental Trajectory	Business survival rate; tax base; employment vs. Counterfactual Recovery Test benchmark			
Retention and Distribution	Resident return by income band; small-landlord recovery rate; heirs'-property resolution rate			
Identity and Legacy	Civic anchors restored or repurposed; cultural asset preservation status			

Appendix G — Glossary and Selected Bibliography

Glossary

Term	Definition
Discernment Window	The period during which a recovery decision can still be changed before it locks into contracts, land use, or permanent funding — this paper's central planning device. Runs in two overlapping stages, Early (starting during Stabilization, asset by asset) and Formal (intensifying once stabilization is achieved) (Section V)
Irreversible Decisions Register	A running, Day-1 list of upcoming commitments at risk of premature lock-in, tracked asset by asset alongside the Discernment Window (Section V, Section IX)
K-shaped recovery	Divergent recovery outcomes by income and vulnerability within the same community — well-resourced residents recovering quickly while lower-income and more vulnerable populations are displaced or reduced in circumstances (Section I)
Recovery Charter	The concise governing document, adopted after discernment, that pins down a jurisdiction's recovery commitments in one place (Section V, Appendix A)
Restore/Harden/Redesign/Relocate/Repurpose/Retire/Create Matrix	The seven-posture decision tool applied to each major recovery asset (Section V, Appendix B)
Reconstruction Mirage	Reconstruction spending making headline indicators look like recovery while the organic economy and population continue to decline underneath (carried forward from An Introduction to Stabilization Management Principles)
Recovery Coordinator	The named official who runs day-to-day recovery execution, the third point on the three-coordinator spine with the Stabilization Coordinator and Chief Resilience Officer (Section IX)
Essential / Aspirational (Must-Have / Nice-to-Have)	The minimalist and maximalist recovery agendas, set during normal operating conditions (Section IV, Appendix E)
Recovery Stack	The three parallel layers of recovery assistance — government baseline, market-based development, and VOAD/philanthropic — and the visibility function that connects them (Section VI)

Displaced Residential REIT	A title-for-equity real estate investment vehicle converting displacement into ownership on vulnerable or contested parcels (Section III, Appendix D)
Counterfactual Recovery Test	Evaluating recovery against three baselines — pre-disaster condition, pre-disaster trajectory, and strategic potential — rather than one (Section I)

Selected Bibliography

Companion ISD papers: Development Support Functions for Asset Protection and Growth (Community Assets Framework); An Introduction to Stabilization Management Principles; The Resilience Executive: A Field Manual for State and Local Chief Resilience Officers; Empowering States for a Resilient Future: A National Strategy for State-Led Risk Management and Recovery.

External sources cited in this draft: Urban Institute, “Why Does Disaster Recovery Take So Long? Five Facts about Federal Housing Aid after Disasters” and the underlying CDBG-DR timing analysis; Federal Reserve Bank of New York, Liberty Street Economics, “The Path of Economic Recovery from Superstorm Sandy” and “The Region's Job Rebound from Superstorm Sandy,” and “New York City's Economy Before and After September 11” (Jason Bram, 2003); NYU School of Global Public Health, “Ten Years After Sandy: Charting a Region's Recovery”; HUD Office of Inspector General audit reports on the Lower Manhattan Development Corporation; National Academies / National Research Council, Hurricane Hugo, Puerto Rico, the Virgin Islands, and Charleston, South Carolina, September 17–22, 1989; The Data Center (New Orleans), population and recovery research; U.S. Census Bureau population estimates.

A note on sourcing discipline: figures in Section II are drawn from the specific reports named above and from ISD's own Katrina and Sandy case files; where a figure could not be sourced to the standard used elsewhere in this paper, it is marked as not researched for this draft rather than estimated.

Appendix H — Worked Example: Millbrook County

Millbrook County is fictional — a composite built to show what the tools in this paper produce when actually filled in, not a real jurisdiction. Population approximately 85,000; a county seat, a historic waterfront downtown, a single dominant manufacturing employer, and two flood-exposed residential neighborhoods with significant heirs'-property ownership. Hurricane Renata, a fictional Category 3 storm, brought a 9-foot storm surge along the Millbrook River estuary and inland flooding upriver. Roughly 3,200 homes were damaged and 600 destroyed; the county's wastewater treatment plant was offline for six weeks; Millbrook Fabrication Works, the county's largest employer at roughly 1,200 jobs, flooded but remained structurally repairable.

Condensed Reality Assessment

Category	Findings
Physical and environmental	9-ft surge along the estuary; inland flooding along the Millbrook River in the Riverside and Cedar Grove neighborhoods; updated FEMA flood maps expand the mapped floodway by roughly 40%
Demographic and social	Approximately 1,800 households displaced; return intentions notably lower in Cedar Grove, where heirs'-property status complicates eligibility for individual assistance
Economic	Millbrook Fabrication Works structurally repairable but offline 4 months; roughly 60 small businesses in the downtown waterfront core damaged; two insurers have already signaled intent to non-renew flood-zone policies
Fiscal and institutional	County has one grant-management FTE pre-storm; no standing title-clearing legal capacity; realistic 5-year recovery capital estimated at \$38M combining CDBG-DR, FEMA Public Assistance, state bridge financing, and philanthropic sources
Identity and legacy	Cedar Grove Community Church (est. 1891) and two of three historic downtown commercial buildings damaged; Cedar Grove is the county's oldest continuously Black-owned residential neighborhood

Completed Matrix (10 Assets Across All Six RSFs)

Asset	RSF	Decision	Rationale
Riverside neighborhood, 40 homes in mapped floodway	Housing	Relocate	Repeated flood losses exceed cumulative value; land banked for green infrastructure
Cedar Grove, 40 highest-risk parcels (heirs' property common)	Housing	Relocate	Title-clearing support precedes REIT exchange; residents choose equity-for-unit, down payment, or hold
Cedar Grove, remaining 100 parcels (moderate risk)	Housing	Harden	Elevation and flood-venting keep the historic neighborhood core intact where risk is manageable
Millbrook River Bridge (sole river crossing)	Infrastructure Systems	Redesign	Elevated and widened; an enabling project — Cedar Grove and Riverside relocation both depend on reliable access
Downtown wastewater treatment plant	Infrastructure Systems	Relocate	Sole-source facility sat inside the surge zone; single point of failure for the entire county
Millbrook Fabrication Works (1,200 jobs)	Economic	Harden	Flood barriers and backup power; retention of the county's largest employer outweighs relocation cost and disruption
Downtown waterfront commercial core	Economic	Redesign	Flood-resistant ground floors, residential upper floors — diversifies the tax base beyond single-employer dependence
Cedar Grove Community Church (1891)	Natural and Cultural Resources	Restore	High community and cultural value; damage was code-standard repair, not a structural vulnerability problem
County public health clinic (currently a trailer)	Health and Social Services	Create	County never had a permanent clinic; the storm exposed a pre-existing gap, not just storm damage

Grant-management and planning department capacity	Community Planning and Capacity Building	Redesign	One pre-storm FTE cannot administer a \$38M portfolio; reorganized with dedicated recovery staff
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Completed Recovery Charter

Charter Element	Millbrook County's Entry
1. Post-disaster conditions	Hurricane Renata, Category 3; 3,200 homes damaged, 600 destroyed; Cedar Grove and Riverside hardest hit; wastewater plant offline 6 weeks; Fabrication Works flooded but repairable
2. Desired development trajectory	Move from a pre-storm trajectory of slow growth (~0.5%/year) and single-employer dependence toward a diversified, climate-adapted economy that retains Cedar Grove and Riverside residents rather than losing them to relocation elsewhere
3. Assets and populations to retain	Cedar Grove's historic residents and heirs'-property owners; Millbrook Fabrication Works and its 1,200 jobs; the downtown historic waterfront core
4. Risks no longer acceptable	Unelevated residential structures inside the mapped floodway; a sole-source wastewater plant inside the surge zone; a county government without dedicated grant-management capacity
5. Recovery priorities	Essential: wastewater relocation, bridge redesign, Cedar Grove title clearing and REIT formation, Fabrication Works hardening. Aspirational: downtown mixed-use redesign, permanent health clinic, cultural district investment
6. Matrix decisions	See the 10-asset Matrix above, covering all six RSFs
7. Distributional commitments	Cedar Grove and Riverside residents, particularly heirs'-property owners and renters, receive priority legal and relocation assistance; return tracked by income band, not as a single aggregate figure
8. Fiscal constraints	\$38M realistically anticipated over 5 years (CDBG-DR, FEMA Public Assistance, state bridge financing, philanthropic bridge capital); Essential list sized to this figure, Aspirational items contingent on additional capital
9. Governance responsibilities	Recovery Coordinator (Deputy County Administrator) appointed, reporting to the County Administrator; sunset tied to adoption of the Year 5 Post-Disaster CEDS Addendum
10. Metrics and review schedule	Annual Trajectory Review each October; Scorecard published each January, starting with the Year 1 baseline below

Completed Scorecard — Year 1

Dimension	Indicator	Baseline (Pre-Storm)	Year 1	Year 3 Target
Safety and Risk Reduction	% of rebuilt structures meeting hardened standards	12%	28%	55%
Institutional Capacity	Grant-management staffing (FTE)	1	3 (2 grant-funded)	3, absorbed into general fund
Developmental Trajectory	Business survival rate (downtown core)	—	81% reopened	90%+, positive net new formation
Retention and Distribution	Resident return by income band	—	Above-median: 94% returned. Below-median: 61% returned	Gap closed to within 15 points
Identity and Legacy	Civic anchors restored	3 historic structures at risk	Church restored; 2 of 3 downtown buildings under repair	Full historic core restored

The Year 1 Retention and Distribution row is the worked example's most important number: a 33-point gap between above-median and below-median return rates is a K-shaped recovery in progress, visible only because the Scorecard

tracks return by income band rather than as a single aggregate “78% returned” figure that would have hidden it. This is what Section I’s equity argument produces when actually measured, not just asserted.