COGPLEXITI · SYSTEMS & DECISION ANALYSIS

THE SYSTEM TIER

The Institutions, Incentives, and Futures of American Wildfire Under Reorganization

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ISBN 979-8-9959056-4-6 (paperback)
Published by Cogplexiti LLC.
Printed in the United States of America

EDITION INFORMATION

First Edition, June 2026. Cogplexiti · Systems & Decision Analysis. Trim 8.5 × 11.
Published by Cogplexiti LLC, Flagstaff, Arizona. jayson@cogplexiti.com
www.cogplexiti.com

The System Tier is the system tier of a three-tier body of work. Below it, *The Incident Tier* addresses incident response and coordination, and the *Operational Leader's Field Guide* (ISBN 979-8-9959056-1-5) addresses the operational-leader level.

DISCLAIMER

The views, frameworks, and recommendations expressed in this publication are those of the author and do not necessarily reflect the official policy or position of the Sedona Fire District, Southwest Incident Management Team 1, the National Wildfire Coordinating Group, the U.S. Forest Service, the U.S. Wildland Fire Service, or any other agency or organization. This document is not doctrine. It is a professional analysis informed by operational experience, research, and study.

The analysis in this volume is intended for professional and policy audiences. It does not replace agency policy, doctrine, or authoritative legal and regulatory sources. Readers are responsible for exercising professional judgment appropriate to their specific context.

How to Read This Volume

This is the system tier of a body of work that runs from the national architecture to the individual decision. It looks at the institutions, incentives, and futures of the American wildfire system: where the system came from and how it behaves under load, what its reorganization changed, and which futures the decisions of 2026–2031 are keeping reachable. Below it, *The Incident Tier* addresses incident response and coordination, and the *Operational Leader's Field Guide* addresses the operational-leader level — the leader's own decision discipline under pressure.

The volume is one argument in two movements, read in order:

> Movement I — The American Wildfire System Under Reorganization appreciates the system's context, defines its problem as six structural tensions, and develops an approach — a no-regrets package and three courses of action — with a red team, a dissent, and falsification criteria stated in advance. It is itself in two volumes: Volume One appreciates the context; Volume Two defines the problem and develops the approach.
>
> Movement II — Alternative Futures Following the American Wildfire System Reorganization carries those falsification criteria forward into four plausible futures of the system in 2046, and uses them the way force planners use alternative futures: not to predict, but to test which of today's decisions are robust across futures and which are bets on one.

The movements are sequential by design: the Reorganization volume's six tensions, its no-regrets package, and its courses of action are the material the futures wind-tunnel, which is why the system analysis leads and the futures follow. The method and the discipline are common throughout — appreciate the context before defining the problem, define the problem before developing the approach, and state in advance what would tell you you're wrong.

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Movement I — The American Wildfire System Under Reorganization

Volumes One and Two

VOLUME ONE — APPRECIATING THE CONTEXT

Missions, machinery, local rationality, and the as-built reorganization of the national wildland fire system

How to Read Volume One

This volume is the first movement of a three-part discipline drawn from planning for complex operations: *appreciate the context, define the problem, develop an approach* — in that order, because the order is the safeguard. Volume One is the appreciation, and it deliberately stops short of defining the problem: a problem statement written before the context is understood inherits its author's blinders, and an approach built on it optimizes the wrong system with great efficiency. The subject — the reorganization of the American wildland fire system around the new U.S. Wildland Fire Service — is itself, as Part IV documents, a live demonstration of approach-before-appreciation; this volume's architecture is a refusal of the same error.

The six Parts build in sequence. Part I establishes the operating environment — the fire regime, the built environment, the cost curve, and the workforce — as the load any institutional design must carry. Part II establishes the institutions — federal agencies, states, tribal nations, and local governments — as they actually are: distinct statutory missions, planning horizons, and local rationalities that no reorganization order amends. Part III documents the coordination architecture that combined them for half a century, including the agency administrator doctrine at its center. Part IV documents the reorganization as built — instruments, authorities, structure, and congressional posture — through June 2026. Part V brings load and structure into contact: the friction map. Part VI converts the whole into a register of conditions that any honest problem definition must account for, and hands the work to Volume Two. Sourcing is Chicago author–date with references closing each Part; analysis is system-level throughout, attributes no motives, and treats every actor — including the reorganization's architects — as rational within their own goal structures. The reader who wants the volume's argument in one place should read Sections 4.4, 5.2, and 6.3 and then return to the beginning.

Volume One · Part I — The Operating Environment

The fire regime, the built environment, the cost trajectory, and the workforce — the conditions any institutional design must perform under

1.1 Why This Part Comes First

Institutional design questions are only answerable against the environment the institution must perform in. The reorganization documented in Part IV is justified by its authors as a response to a changed fire environment; its critics object that it misreads that environment. Neither claim can be evaluated until the environment itself is established — not impressionistically, but as a set of documented trajectories. This Part establishes four: the fire regime, the built environment's movement into it, the cost and exposure curve, and the condition of the workforce that stands between the first three and the public. Each trajectory was decades in the making, each is well documented, and none is reversed by reorganization. They are the load the system carries; the question the rest of this volume develops is whether the as-built system is shaped to carry it.

1.2 The Fire Regime in Transition

Three drivers, compounding, have changed what American wildfire is. The first is climate. Warming has lengthened the period each year in which fuels can burn: fire seasons in the western United States run on the order of two and a half months longer than they did in the 1970s, driven by earlier snowmelt, hotter summers, and delayed autumn precipitation (Westerling 2016), and the global fire-weather season lengthened measurably over the satellite record (Jolly et al. 2015). Anthropogenic warming's contribution is quantified: increased fuel aridity attributable to human-caused climate change approximately doubled the cumulative forest fire area in the western United States between 1984 and 2015 over what would otherwise have burned (Abatzoglou and Williams 2016). Vapor pressure deficit — the atmosphere's drying power — trends upward across the West, and fuels respond without regard to jurisdiction.

The second driver is the fuels legacy. A century of suppression-dominant policy — Part II traces its institutional origins — removed fire from ecosystems that evolved with it, producing densified forests, ladder fuels, and continuous fuel beds across landscapes that historically burned frequently at low intensity (Pyne 1982; Hessburg et al. 2015). In the Great Basin, the inverse dynamic operates: invasive annual grasses, cheatgrass foremost, have shortened fire return intervals on tens of millions of acres of sagebrush steppe from

many decades to a few years, converting rangeland fire into a fast, recurring, habitat-destroying cycle (Balch et al. 2013). The fuels problem is therefore not one problem; it is opposite problems on adjacent jurisdictions — too little fire in the forests, too much in the rangelands — a fact with direct consequences for any organization applying a single strategic presumption across both.

The third driver is ignition. Humans start the large majority of American wildfires — on the order of 84 percent of ignitions — and human ignition has tripled the length of the effective fire season and pushed fire into seasons, fuels, and places lightning rarely reaches (Balch et al. 2017). Powerline ignition under extreme wind has produced a disproportionate share of the deadliest recent fires. The ignition trend tracks the settlement trend in Section 1.3: more people in flammable landscapes means more starts, in worse conditions, closer to what people value.

The composite result is volatility rather than a smooth ramp. National annual burned area crossed ten million acres for the first time in the modern record in 2015 and has done so repeatedly since; yet 2025 recorded 77,850 fires — significantly above the five- and ten-year averages — burning 5.1 million acres, more than two million acres below those averages (NICC 2026). A high-count, low-acreage year that nonetheless destroyed 18,385 structures (NICC 2026) is the regime in miniature: the meaningful variable is no longer acres burned but what burns, when, and how fast. The January 2025 Los Angeles fires — treated in Section 1.6 — burned under 40,000 acres and rank among the most destructive and costly disasters in national history. Acreage, the system's traditional output metric, has decoupled from consequence.

> Regime marker. The defining fires of the current era — Camp (2018), Marshall (2021), Lahaina (2023), Palisades and Eaton (2025) — share a profile: wind-driven, fast, often outside the traditional season, with structures as the primary fuel bed once established in the built environment. They are urban conflagrations initiated in wildland fuels. The institutions reorganized in Part IV were built, staffed, equipped, and doctrinally formed around a different object: the landscape fire. The mismatch between the fire that drives policy and the fire the land agencies are structured to manage recurs throughout this volume.

1.3 The Built Environment Moves Into the Fire Environment

The wildland-urban interface — where homes meet or intermingle with wildland vegetation — is the fastest-growing land-use type in the conterminous United States. Between 1990 and 2010 the WUI grew by roughly a third in area, and the number of houses within it rose from about 30.8 million to 43.4 million — growth driven overwhelmingly by new housing rather than vegetation change, placing roughly one in three American homes in the interface by 2010 (Radeloff et al. 2018). Growth has

continued since. Every increment adds three things at once: ignition sources, values at risk, and political demand for protection — while subtracting the operational latitude (room for indirect strategies, managed fire, and prescribed fire) that the fuels problem of Section 1.2 requires.

Structure loss has scaled accordingly, and its mechanism is well understood. Structures ignite predominantly from embers and from structure-to-structure spread within the home ignition zone, not from a wall of flame arriving from the forest (Cohen 2000). The implication is jurisdictional and uncomfortable: the variables that determine whether a community survives — construction materials, defensible space, parcel density, water systems, evacuation capacity — are governed by local land-use and building authority and by private owners, not by the federal land managers whose names are on the fire. Part II develops the local rationality that shapes how that authority is exercised; the point to fix here is that the exposure curve is being set at the level of government farthest from the reorganization Part IV documents.

1.4 The Cost and Exposure Trajectory

Federal suppression spending tells the institutional story in one curve. Annual federal suppression costs, in the hundreds of millions of dollars through the early 1990s, now routinely exceed three billion dollars and have passed four billion in severe years (NIFC n.d.). The Forest Service's fire share of agency resources grew from roughly one-sixth of its budget in the mid-1990s to more than half by the mid-2010s — the transformation, in the agency's own framing, of a land management agency into a fire organization with a land management problem (USDA Forest Service 2015). Two decades of "fire borrowing" from non-fire programs to cover suppression ended formally with the 2018 budget agreement's wildfire funding adjustment, but the structural fact it papered over remains: suppression is the only activity in the system that is effectively guaranteed funding at whatever level the season demands. Every other activity — fuels, planning, research, recovery — competes within caps. Organizations learn what their funding architecture teaches, and the architecture teaches suppression. This is the fiscal current any reorganization swims in, and Part V returns to it.

Private exposure has grown faster than public expenditure. Insured losses from the 2025 Los Angeles fires alone are estimated in the tens of billions of dollars, with total economic loss estimates several multiples higher — figures that place a two-fire, sub-40,000-acre event among the costliest disasters in American history (NICC 2026; loss figures flagged for verification at lock). Insurance markets have responded as markets do: carrier withdrawal and non-renewal across high-hazard regions, growth of state insurers of last resort, and utility liability exposure large enough to restructure utilities — the 2019 bankruptcy of the utility implicated in the 2018 Camp Fire being the signal case. Where

insurance retreats, the residual risk does not disappear; it migrates to homeowners, to state backstops, and ultimately to disaster programs — which is to say, to a different level of government than the one making land management and suppression-investment decisions. Risk is being reallocated across the federal system faster than authority or money is.

One accounting correction belongs in the appreciation: suppression expenditure, the figure the system tracks best, is the smallest component of what fire costs. The full bill — disaster response and individual assistance, infrastructure and utility replacement, watershed treatment and debris flow mitigation, lost tax base and business activity, health costs of smoke exposure across populations far from any fire, depreciated property value, and long-tail recovery spending — runs at multiples of suppression cost; analyses of the full community cost of severe fires consistently place suppression at a minor fraction of total economic loss (Thomas et al. 2017). The accounting matters institutionally because the system budgets, measures, and reorganizes around the fraction it can see: a governance debate conducted in suppression dollars is arguing about the visible tenth of the iceberg, and the levels of government that carry the submerged nine-tenths — states, municipalities, school districts, health systems, property owners — are largely absent from the instruments Part IV documents.

1.5 The Workforce Condition

The system's constraint is people. The federal wildland fire workforce entered the 2020s in a documented recruitment and retention crisis: pay non-competitive with state, local, and private employers — starkly so against California agencies — alongside housing costs in duty-station communities, season-length-driven fatigue, and a mounting mental health burden (GAO 2022). Congress responded with a temporary pay supplement in the 2021 infrastructure law and, after repeated cliff-edge extensions, permanent pay reform enacted into law by 2025 (DOI 2025b). Pay was necessary; it was not sufficient. The deeper constraints are structural: the qualification system documented in Part III requires years of task-book progression and currency to produce the command-and-general-staff and incident commander cadre, and that cadre has been thinning as the agency "militia" — employees whose primary jobs are not fire but who carry fire qualifications — declines, and as experienced personnel exit. The consolidation of Type 1 and Type 2 incident management teams into complex incident management teams in 2023 was, among other things, an admission that the bench no longer supported the legacy structure. Part IV documented an organization standing up new structures, new qualifications questions, and a new chain of command on top of this workforce, simultaneously, ahead of a season; Part V assesses what that concurrency costs.

Three features of the workforce condition deserve sharper resolution because they recur in the friction analysis. First, the attrition asymmetry: the people most able to leave are the most qualified — mid-career personnel whose red cards and overhead experience price directly into state, municipal, and contractor markets — so attrition removes capability faster than it removes headcount, and the qualification pipeline replaces the headcount on a one-to-three-year cycle but the capability on a five-to-fifteen-year one. Second, the season-length squeeze: the year-round fire year documented in Section 1.2 consumed the shoulder seasons in which the workforce historically trained, took leave, completed task books, burned, and recovered; the same trend that raises demand degrades the system's capacity to produce and maintain the people who meet it. Third, the human cost has moved from anecdote to record: elevated suicide, injury, and occupational-illness burdens — including the cumulative smoke-exposure and cancer findings that drove recent presumptive-coverage reforms — are now documented features of the occupation, and they bear on retention as surely as pay does (GAO 2022). The 2025 hiring season illustrated the arithmetic: the Forest Service reported reaching roughly 9,400 of an 11,300-firefighter goal — a real recovery from the trough, and still a sixth short of target in the year the system's largest structural change began.

1.6 January 2025, Los Angeles: The Proximate Trigger

Every architecture in this volume's scope was reordered, directly or indirectly, by one event. On January 7, 2025, under Santa Ana winds reaching hurricane force across terrain carrying record-dry fuels — two wet winters' grass growth cured by eight rainless months — the Palisades and Eaton fires ignited hours apart in Los Angeles County. Together they burned just under 38,000 acres, killed more than 30 people, and destroyed over 16,000 structures — 6,837 on the Palisades Fire and 9,418 on the Eaton Fire — with the 2025 season's national structure losses, 18,385, dominated by that single Southern California week (NICC 2026). Simultaneity overwhelmed the deepest municipal and mutual aid system in the country; hydrant systems engineered for structure fires were drawn down by conflagration demand; evacuation under extreme wind compressed every decision window the system had.

The response itself is a load-bearing exhibit for this volume, because it displayed the whole architecture of Part III operating at once, under saturation, mostly without federal land agencies in the lead. Municipal and county departments made the initial attack; the state's master mutual aid system surged strike teams from across California within hours; Fire Management Assistance Grants were issued while the fires were still making runs; interstate engines arrived through compact and agreement machinery; federal wildland resources, military aircraft, and international crews fed in through the brokered national system; and incident command transitioned through unified command structures spanning city, county, state, and federal authorities. The system's performance under an

unwinnable opening — hurricane-force wind over a city — will be argued for years, and formal reviews are underway. What is not arguable is the architecture the event exercised: a negotiated, multi-sovereign, mutual-aid system in which federal land agencies were one contributor among many. That is the system the fires demonstrated; the reorganization the fires triggered restructured a different part of it.

The fires' institutional consequences arrived within months and are the subject of Part IV: Executive Order 14308 cites the Los Angeles fires in its opening sentence as the demonstration case for reorganizing federal capability. The analytical observation that belongs here, in the appreciation, is structural and carries no judgment about motive: the triggering event was an urban conflagration in a municipal and state protection jurisdiction — fires fought overwhelmingly by city, county, and state resources on nonfederal land — and the institutional response it produced is a reorganization of the federal land management fire apparatus. The fit between the problem demonstrated and the system reorganized is a question, not a given, and it is among the conditions Part VI registers for Volume Two's problem definition.

1.7 What the Operating Environment Demands

Stated as load, not as prescription, the trajectories above impose five demands on any institutional design. First, *simultaneity tolerance*: the binding scarcity is no longer any single incident's needs but concurrent demand across regions and seasons — the system's real test is allocation under saturation. Second, *speed across boundaries*: wind-driven fire crosses jurisdictions in hours; any design that requires negotiation at boundaries during the run pays in structures. Third, *year-round posture*: the season is a planning fiction; January produced the decade's defining fire. Fourth, *two opposite fuels strategies at once*: more fire on the forested landscape, less in the invaded rangelands, both requiring latitude that the exposure curve and the political environment keep narrowing. Fifth, *durability under workforce scarcity*: the design must function with the bench it has, not the bench it assumes. These five demands are the standard against which Part V reads the as-built system — and they are demands on every level of government at once, which is why Parts II and III insist on treating the states, tribes, counties, and fire districts as constituent parts of the system rather than as its periphery.

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Volume One · Part II — Institutional Lineage

Missions, land, planning horizons, and local rationality across every level of government in the fire system

2.1 Why Mission Lineage Matters — and What Local Rationality Means

The agencies consolidated in Part IV are routinely described as doing the same work — fighting fire — with redundant overhead. This Part tests that description against the record and finds it false in a specific, consequential way: the agencies share tactics and a qualification system, but fire occupies a different position in each agency's mission, because each mission was written by a different Congress, in a different era, to solve a different problem, on a different kind of land. Organic acts are not heritage decoration. They are live operating constraints — the statutes a superintendent or a refuge manager is legally bound by when fire arrives — and they remain in force, unamended, beneath the unified structure. A reorganization can move people and authorities; it cannot move the law the land is managed under.

One concept governs this Part's treatment of every actor, federal and non-federal alike: *local rationality* — the principle, developed in the safety-science literature, that people and organizations make decisions that are rational given the goals, knowledge, incentives, and constraints present at their position in the system, even when those decisions look wrong from another vantage point (Dekker 2014; Woods et al. 2010). A county approving subdivision in the interface, a state hesitating to sign an agreement with an unfunded federal counterparty, a tribe expanding its own fire program rather than relying on a reorganizing bureau, a park superintendent resisting dozer line in designated wilderness — each is behaving rationally within its own goal structure. A national system design that requires these actors to behave against their local rationality will not get the behavior it requires; it will get workarounds, friction, and surprise. This Part therefore documents not only what each actor *does* but what each actor is *answerable for* — because answerability is where local rationality comes from.

2.2 The U.S. Forest Service

The Forest Service is the system's gravitational mass: roughly 193 million acres across 154 national forests and 20 grasslands, and historically more than two-thirds of federal firefighting personnel and a comparable share of contracting and procurement (Western News 2025). Its statutory spine runs from the 1891 Forest Reserve Act through the 1897

Organic Administration Act — which established the reserves for two purposes, securing favorable water flows and furnishing a continuous supply of timber — to the 1905 transfer of the reserves to the Department of Agriculture under Gifford Pinchot, the 1960 Multiple-Use Sustained-Yield Act, and the 1976 National Forest Management Act's planning regime. The agency manages for many uses on long clocks: forest plans run on decadal cycles and timber rotations on the better part of a century.

Its fire identity was forged by catastrophe. The 1910 fires — three million acres and 78 firefighters dead in two days across Idaho and Montana — nearly destroyed the five-year-old agency and then defined it: suppression became the mission that justified the budget, and by 1935 the "10 a.m. policy" committed the agency to controlling every fire by ten o'clock the morning after detection (Pyne 1982; Egan 2009). Equally formative is the agency's administrative culture, documented in Kaufman's study of the district ranger: an organization built to produce consistent decentralized judgment, with the geographically distributed line officer — ranger, forest supervisor — as the integrating official for everything on the unit, fire included (Kaufman 1960). The agency administrator doctrine that Part III details and Part IV documents the migration of is, in large measure, this culture written into fire governance. What a good outcome looks like to the Forest Service is correspondingly plural: communities protected, but also a forest that still supports the timber program, the watershed, the grazing permittees, and the recreation economy the unit answers for — on a decadal horizon.

The scale of the modern program deserves its own paragraph because every consolidation argument turns on it. The Forest Service fields the hotshot crew system's majority, the largest share of national engines and aviation contracting, the national airtanker base network's core, and — through hosting agreements — much of the interagency machinery itself; its dispatch centers, caches, and training apparatus serve the whole community. Beneath the professional fire organization runs the militia tradition Part III treats as infrastructure: foresters, biologists, recreation staff, and line officers carrying fire qualifications as collateral duty — a design that simultaneously surged the workforce in season, kept fire judgment distributed through the land organization, and built the experiential base from which agency administrators and fire executives alike were grown. That tradition has been thinning for two decades under workload, liability anxiety, and incentive drift, and the agency's internal restructuring — fire consolidated under a single deputy chief, with incident leadership relocated from the district rangers who built careers integrating fire with everything else the unit does — lands on a militia already in decline. The agency also carries the system's institutional memory in its scar tissue: 1910, Mann Gulch 1949, South Canyon's organizational reckoning, the Thirtymile and Cramer fatality reforms, the doctrine reviews — each is a Forest Service story first, and the safety architecture the whole community operates under was substantially written in the agency's after-action ink.

2.3 The Bureau of Land Management

The BLM — formed in 1946 from the merger of the General Land Office and the Grazing Service, given its modern charter by the 1976 Federal Land Policy and Management Act — manages some 245 million surface acres, the largest land portfolio in the federal estate, concentrated in the Great Basin, the Mojave, the Colorado Plateau, and Alaska. Its mission is multiple use and sustained yield on lands that were, historically, the lands nobody else claimed: rangeland, sagebrush steppe, desert. Its fire problem is the inverse of the forest problem — fast, wind-driven, grass- and brush-carried fire on the cheatgrass-shortened return intervals documented in Part I, where a fire missed at initial attack can be a hundred thousand acres by morning and the resource at stake — sagebrush habitat, notably for sage-grouse, and the forage base of the rangeland economy — is destroyed by the fire itself rather than restored by it (Balch et al. 2013).

That problem built a culture: the BLM fire organization prizes speed, aviation, and aggressive initial attack, and it is — by size, budget, and operational tempo — the dominant fire program within Interior. Its planning horizon is shorter and more operational than the Forest Service's: resource management plans, ten-year grazing permits, annual fuels targets. The point matters for Part IV's as-built organization because the USWFS's leadership bench draws heavily from BLM fire; the cultural default of the new unified service — visible already in the first-season full-suppression presumption — is, to a first approximation, the BLM default. On BLM ground that default is usually right. The question this volume keeps open is what it costs on the other three bureaus' ground.

Two further BLM facts complete the picture. First, Alaska: through the BLM Alaska Fire Service, the bureau holds suppression responsibility across the enormous Interior Alaska protection area on behalf of all federal agencies and Alaska Native corporation lands — a zoned-protection system (critical, full, modified, limited) that is the nation's most explicit operating example of response calibrated to values rather than uniform suppression, on landscapes where most acres are designated to burn. Alaska routinely leads the nation in acres — it did again in 2025 (NICC 2026) — while consuming a fraction of national suppression cost, precisely because the doctrine there prices what the land is for. Second, the bureau's national assets: BLM runs one of the two federal smokejumper organizations and a heavy share of national aviation and engine capacity, and its fire program has long functioned as Interior's de facto operational core — which is why the USWFS, built substantially on BLM chassis and leadership, inherits both that organization's genuine excellence at fast initial attack and its comparatively thin institutional experience with the preservation, refuge, and trust missions it now also serves.

2.4 The National Park Service

The Park Service's 1916 Organic Act sets a mission unlike any other in the system: to conserve scenery, natural and historic objects, and wildlife, and to provide for their enjoyment "by such means as will leave them unimpaired for the enjoyment of future generations." Unimpaired, and future generations — the planning horizon is statutory perpetuity. Across roughly 85 million acres, fire is not an enemy of that mission; in most park ecosystems it is a constituent of it. The agency internalized that fact earlier than any other: the 1963 Leopold Report reframed parks as ecological systems rather than scenery, and by 1968 the NPS had become the first federal agency to formally restore natural fire to the landscape, running prescribed and lightning-managed fire programs decades before its peers (Leopold et al. 1963; Pyne 1982).

The 1988 Yellowstone fires — some 793,000 acres inside the park, a summer of national controversy, and a federal policy review — demonstrated both the political exposure of managed fire and the agency's institutional willingness to absorb that exposure in service of the mission (Rothman 2007). NPS fire culture descends from that history: ecologically literate, superintendent-centered, protective of wilderness values and of the latitude to manage fire for resource benefit, and instinctively suspicious of suppression damage — dozer line, retardant in watersheds — whose scars outlast the fire by decades. A good outcome, to a park, can include a large burned area. That sentence is unremarkable inside the NPS and nearly unsayable inside parts of the system it has now been consolidated with; the distance between those two facts is a load-bearing element of Part V's friction map.

The agency's managed-fire record gives the abstraction empirical weight. In basins where lightning fire has been allowed to work for decades — the Illilouette Creek basin in Yosemite is the studied exemplar — the documented results include self-limiting fire behavior, increased water yield, and forest structure resilient to the droughts and beetle epidemics devastating suppressed landscapes nearby (Boisramé et al. 2017). The park system, in other words, holds the country's longest-running field evidence for the proposition at the center of the national fuels debate. Two operational corollaries follow. Wilderness designation overlays much of the NPS estate, bringing minimum-impact suppression expectations and legal constraints on mechanized equipment that a suppression-presumptive organization must either honor at tactical cost or breach at legal and mission cost. And the superintendent — the NPS agency administrator — has historically exercised the doctrine of Part III with unusual force, because the Organic Act gives the position an unambiguous client: the resource itself, in perpetuity. The reorganization relocated precisely this official's strategic fire authority; what it did not relocate is the statute the official still answers to.

2.5 The U.S. Fish and Wildlife Service

The Fish and Wildlife Service administers the National Wildlife Refuge System — on the order of 95 million land acres across more than 560 refuges, from Okefenokee to the Arctic — under the 1966 administration act as amended by the 1997 Refuge System Improvement Act, which gave the system a singular, hierarchical mission: wildlife conservation first, with all uses subordinate and compatible. Much of that estate is fire-dependent habitat — southeastern coastal plain pine and marsh above all — and the agency runs, proportional to its size, the most active prescribed fire program in the federal family, with a burning culture rooted in the Southeast, where fire is routine land management rather than emergency (Wade and Lunsford 1989). Its suppression organization is small and partner-reliant by design; its planning horizon is set by species recovery plans and habitat maintenance cycles — the cadence of nesting seasons and fuel moisture windows, not fiscal years. The refuge manager's local rationality is exact: a missed burn window is habitat lost and a recovery objective set back; an overaggressive suppression response inside a refuge can damage the very resource the refuge exists for. The agency's stake in the reorganization is therefore less about suppression capacity than about whether a unified, suppression-presumptive organization will prioritize, staff, and authorize the burning the mission requires.

2.6 The Bureau of Indian Affairs and the Trust Responsibility

BIA fire is categorically different from the other three programs, and the difference is legal before it is operational. The roughly 56 million acres of Indian trust and restricted lands are not public lands; they are assets the United States holds in trust for tribal nations and individual Indian beneficiaries, and fire management on them is an exercise of the federal trust responsibility. Timber on trust land is tribal income; a stand lost to fire or to suppression damage is a trust asset diminished, with the fiduciary exposure that implies. Since the 1975 Indian Self-Determination and Education Assistance Act, moreover, tribes may contract or compact the federal fire function itself — and many of the most capable fire programs in the country are tribally operated under those authorities, with the Tribal Forest Protection Act of 2004 extending tribal reach onto adjacent federal lands (Indian Self-Determination Act 1975; TFPA 2004). The revival of cultural burning — traditional fire practice as both ecological stewardship and sovereignty expression — adds a dimension no other program carries.

Two further facts give the trust relationship its operational texture. The independent Indian Forest Management Assessment Team reviews, conducted decennially under the 1990 forest management statute, have found in every cycle that Indian forestry — fire

included — delivers comparable or better land outcomes than neighboring federal management while funded at a fraction of the per-acre rate, a documented, longstanding equity gap in the trust obligation itself (IFMAT 2023). And tribal fire practice is not a heritage footnote but a living technical tradition: tribes such as the Karuk and Yurok have rebuilt family- and ceremony-based burning into programs that train practitioners nationally, state law in California now recognizes cultural burning's distinct status, and prescribed-fire training exchanges built on tribal practice have become one of the system's few growing sources of burn-qualified personnel. The reorganization therefore touches the BIA program at a uniquely sensitive joint: a chronically underfunded fiduciary obligation, a self-determination architecture that lets tribes exit federal performance they distrust, and a knowledge tradition the wider system increasingly depends on — all now interfacing with a unified service whose trust doctrine remains, as Part IV documented, unwritten.

Every BIA fire decision is therefore intergovernmental by definition: the tribe is not a stakeholder to be consulted but a sovereign client and, frequently, the operator. SO 3443 acknowledged the distinct status with its sole mission-specific protection clause — the Assistant Secretary for Indian Affairs' obligation to ensure the unification does not impede effectiveness in Indian country (DOI 2025a) — but the as-built record gives no doctrine for how trust-responsibility decisions are exercised by a unified service whose authorities are sealed inside its own chain of command, nor how 638 contracting interfaces with a USWFS rather than a BIA fire program. For a tribal nation weighing whether to expand its own compacted fire capacity, the rational reading of an unsettled federal counterparty is obvious, and Part V follows it.

2.7 The States

State governments hold fire protection responsibility for the majority of the American landscape — state and private lands carry most ignitions, most people, and most structures — and the institutional forms they have built for it span an extraordinary range. At one pole stands CAL FIRE: a full-service state fire department of more than ten thousand personnel with its own air force, academy, and multibillion-dollar budget, holding protection responsibility for over 30 million acres of State Responsibility Area and operating, in effect, as a peer of the entire federal system in capability. At the other pole are states whose forestry agencies field a few dozen permanent fire staff and meet the season through compacts and volunteer departments. In between sit the large state programs — Texas, Florida, Oregon, Washington, Colorado among them — each shaped by its own fire regime: Florida's agency burns more than two million acres a year on purpose and treats prescribed fire as its central act; Texas A&M Forest Service is built around surge coordination across a vast volunteer base.

State local rationality is set by what governors and legislatures answer for: structures, lives, evacuations, smoke, and the state budget — on annual or biennial cycles. Federal acres burning in the backcountry register politically only as smoke and risk; a subdivision lost registers absolutely. Two structural features of the federal–state interface follow. First, the agreements: state engagement with federal incidents runs through the master cooperative agreements and compact machinery documented in Part III — the same machinery Part IV showed entering wholesale revision with a new, unfunded federal counterparty on the other side. Second, the money: the Fire Management Assistance Grant program reimburses 75 percent of eligible state suppression costs on declared fires, a design that shapes state declaration-seeking and suppression-posture decisions in ways that are entirely rational from the statehouse and not always aligned with least-cost or best-land-outcome response. States are not implementers of national fire policy; they are sovereign systems with their own optimization, and the national response is the negotiated overlap.

Regional texture matters because “the states” do not hold one fire culture. The Southeast runs the country’s prescribed-fire civilization: private and state burning at millions of acres annually under right-to-burn statutes and certified burn-manager programs, with Florida’s program the working proof that a populous, litigious, smoke-sensitive state can keep fire on the land as routine practice. The Northeast organized interstate response first — the 1949 compact — and runs lean agencies atop deep volunteer systems. The Great Plains states meet wind-driven grass fire substantially through county and volunteer capacity with state surge coordination, Texas being the scaled case. Alaska pairs its state Division of Forestry with the federal zoned-protection system described above. And the Pacific and Mountain West states — California apart — have spent two decades converting forestry agencies into year-round fire organizations while their legislatures discovered, season by season, what that costs. Any national design encounters not a state tier but fifty bilateral relationships, each carrying its own statutes, its own burn culture, and its own memory of the last time the federal side changed the rules.

2.8 Local Government: Counties, Municipalities, and Fire Districts

The ground floor of the system is local, and it is where the two most consequential authorities in American fire reside. Structural fire protection belongs to roughly thirty thousand local fire departments — the majority volunteer — plus municipal and county departments and special fire districts funded predominantly by property tax. Evacuation authority, across most of the West, belongs to county sheriffs. No federal reorganization touches either authority, yet the defining fires of Part I were decided substantially by both.

Local rationality here contains the system's hardest knot, and it should be stated without euphemism because Volume Two must eventually address it. Land-use authority — the single most powerful lever over wildfire exposure, per Section 1.3 — sits with counties and municipalities whose fiscal base is property development and whose fire districts are funded by the very assessed value that interface growth creates. A county that approves WUI subdivision is expanding the tax base that pays its firefighters; the development that raises the risk funds the protector. This is not corruption or ignorance; it is a rational response to a fiscal architecture, sustained by the reasonable local expectation that when the fire comes, state and federal resources — and federally subsidized disaster recovery — will arrive. Every level of the system above the county subsidizes the consequences of decisions the county is structurally incentivized to make. A national design that does not account for this loop is not describing the system it operates in. Volunteer departments add a second local fact: the surge capacity of rural America runs on unpaid labor with declining recruitment, aging membership, and reimbursement processes — now under revision per Part IV — that determine whether a small department can afford to say yes to a federal mobilization at all.

The volunteer institution deserves a paragraph of its own, because national designs habitually treat it as a rounding error and it is closer to a foundation. Volunteers constitute the majority of American firefighters; they provide the first — often the only — apparatus on most rural wildland starts in the eastern two-thirds of the country and much of the intermountain West; and the national trends are uniformly adverse: volunteer numbers flat-to-declining for decades while call volumes multiplied, average age rising, training-hour requirements growing toward career standards, and small-town employment patterns no longer releasing workers for daytime response (NFPA n.d.). A volunteer department's local rationality is the starkest in the system: its capacity is donated, its budget is a pancake breakfast and a property-tax sliver, and every wildland mobilization it accepts is borne by employers, families, and a truck the district cannot replace. Federal interfaces — qualification crosswalks, equipment standards, reimbursement timelines — are experienced at this level not as policy but as the difference between participating in the national system and watching it drive past. A reorganization that adds paperwork friction at the federal seam, however incidentally, prices the smallest participants out first — and they are the participants the initial-attack map cannot spare.

2.9 Tribal Nations as Sovereigns and Operators

Tribal nations appear twice in this system and must be counted twice. As beneficiaries of the trust responsibility, they are the clients of the BIA program described in Section 2.6. As governments, the 574 federally recognized tribes are sovereigns with their own emergency management, their own protection responsibilities, and — for a substantial

and growing number — their own fire programs operated under self-determination contracts and self-governance compacts, fielding crews, engines, and overhead that serve the national system alongside their own lands. The cultural fire revival — tribally led return of traditional burning, increasingly enabled by state legislation and federal partnership — is simultaneously an ecological program, an assertion of sovereignty, and a working demonstration that the system's fuels problem has practitioners outside its agencies (Lake et al. 2017). Any account of national capability that books tribal capacity as a subset of BIA misses both the legal structure and the operational reality; any reorganization that unsettles the BIA interface — as Part IV documented — unsettles a government-to-government relationship, not an org chart.

2.10 The Federal Fire Policy Arc

The missions above were set by organic statutes; the fire doctrine laid over them moved through a century-long arc that Part IV's reorganization must be read against. The arc opens with 1910 and the suppression consensus it forged, hardens into the 1935 "10 a.m. policy," and begins to bend in the 1960s as fire ecology — the Leopold Report, the Tall Timbers fire conferences — forced recognition that suppression was manufacturing the fuels crisis (Leopold et al. 1963; Pyne 1982). The NPS broke first, in 1968; the Forest Service formally retired the 10 a.m. policy in 1978 in favor of fire management by objectives. The 1994 season — thirty-four wildland firefighter deaths, fourteen at South Canyon — produced the 1995 Federal Wildland Fire Management Policy: the first truly common interagency doctrine, establishing firefighter and public safety as the first priority, recognizing fire as an essential ecological process, and requiring every burnable acre to be covered by a fire management plan (USDI and USDA 1995). The 2000 season — including the Cerro Grande escaped prescribed fire — brought the National Fire Plan and the 2001 policy update; 2003 brought the Healthy Forests Restoration Act; 2009 guidance allowed a single fire to be managed for multiple objectives simultaneously, completing the doctrinal move from "suppress or not" to "respond commensurate with values and objectives."

Two further waypoints complete the arc. The 2014 National Cohesive Wildland Fire Management Strategy — resilient landscapes, fire-adapted communities, safe and effective response — is the system's only genuinely intergovernmental strategic framework, negotiated across federal, state, tribal, and local governments precisely because no single level can deliver any of its three goals (WFLC 2014). And in 2023 the congressionally chartered Wildland Fire Mitigation and Management Commission — itself a multi-level body — delivered nearly 150 consensus recommendations to Congress spanning the whole system (WFMMC 2023). The arc's direction over ninety years is unmistakable: away from uniform suppression and toward objective-driven response; away from federal unilateralism and toward negotiated intergovernmental strategy. Part IV documented a

reorganization whose first-season doctrine presumes full suppression and whose design process ran on executive clocks with consultation provisions rather than co-production. Whether that constitutes a correction or a reversal of the arc is a Volume Two question; that it runs against the arc's direction is a documented fact of the context.

The arc's fiscal coda belongs on the record because the reorganization landed in the middle of it. The 2021 infrastructure law and the 2022 Inflation Reduction Act together committed the largest fuels-and-resilience investment in the system's history — billions for hazardous fuels, community defense, burned-area recovery, and the firefighter pay reforms of Part I — with the Forest Service's ten-year wildfire crisis strategy directing treatment toward the highest-exposure firesheds. That wave was time-limited by design: the supplemental funds sunset while the obligations they seeded — permanent pay foremost — do not, leaving the system to enter the reorganization era with a fuels program scaled up on expiring money, a payroll scaled up on permanent law, and an appropriations environment, documented in Part IV, in which the new organization itself is unfunded. The fiscal sequencing — historic investment, then structural upheaval, then funding uncertainty — is part of the context any problem definition inherits.

> The lineage in one sentence. The system being unified is not five fire departments with redundant headquarters; it is five statutory missions, fifty state systems, hundreds of sovereign nations, and thousands of local governments, each behaving rationally within goal structures that no secretarial order amends — and the doctrine of the last half-century exists because uniform suppression, the one strategy that ignores those differences, was tried for fifty years at landscape scale and produced the fuels condition documented in Part I.

2.11 Comparative Register: Missions, Horizons, and Rationality

Table 2–1 compresses this Part into the comparative register Part V draws on. The composite rows for states, local government, and tribal nations necessarily generalize across enormous internal variation documented above; they are included because the friction analysis requires every level on one page.

Actor	Statutory / Legal Anchor	Mission Center	Fire's Role in Mission	Horizon and Local Rationality
U.S. Forest Service	1897 Organic Act; MUSY 1960; NFMA 1976. ~193M ac.	Multiple use: water, timber, range, recreation, wildlife	Threat to and tool for long-rotation forest values; agency's defining historical mission	Decadal plans, century rotations. Answers for the whole unit — protection and productivity together.

Actor	Statutory / Legal Anchor	Mission Center	Fire's Role in Mission	Horizon and Local Rationality
Bureau of Land Management	FLPMA 1976; Taylor Grazing 1934. ~245M ac.	Multiple use on rangeland and desert estates	Fast rangeland fire destroys the resource; speed of initial attack is the mission	RMPs and 10-yr permits. Answers for habitat and forage lost in hours — culture of aggressive IA.
National Park Service	1916 Organic Act ("unimpaired"). ~85M ac.	Preservation of ecological and historic integrity, in perpetuity	Constituent ecological process; suppression damage is mission damage	Statutory perpetuity. Answers to the future; a large burn can be a good outcome.
U.S. Fish and Wildlife Service	1966/1997 Refuge Acts ("wildlife first"). ~95M ac.	Wildlife conservation, hierarchically supreme	Prescribed fire is core habitat management; suppression is occasional necessity	Species recovery and habitat cycles. Answers for burn windows met or missed.
Bureau of Indian Affairs / trust lands	Trust responsibility; ISDEAA 1975; TFPA 2004. ~56M ac.	Fiduciary management of tribal trust assets	Fire threatens trust income; cultural fire is sovereignty and stewardship	Perpetual obligation, near-term revenue. Every decision is government-to-government.
States (composite)	State constitutions and forestry statutes; compacts; FMAG	Protection of lives, structures, state and private lands	Emergency to be controlled; in some states, prescribed fire at scale	Annual/biennial budgets, electoral cycles. Answers for structures and evacuations, not federal acres.
Local government (composite)	Police powers; land-use authority; property-tax fire districts	Structural protection, evacuation, development	Structural threat; also indirectly, the tax base's growth engine	Budget years and election cycles. Development funds the protector — the system's hardest incentive knot.
Tribal nations (composite)	Inherent sovereignty; ISDEAA contracts and compacts	Self-governance; stewardship of homelands; cultural practice	Threat to trust assets; cultural burning as right and practice; tribes as operators	Generational. Answers to the nation's own members; federal reliability is a live variable.

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Volume One · Part III — The Coordination Architecture

How a system nobody designed combines five missions, fifty states, and thirty thousand departments on one fire — the baseline the reorganization rebuilt

3.1 The System Nobody Designed

The national wildfire response system was never designed. It accreted — each major component traceable to a specific disaster that exposed a specific failure, each built by the institutions available at the time, each layered onto what already existed. The result, by the 2020s, was an architecture with a peculiar and load-bearing property: it coordinated without commanding. No official in America commanded the national wildfire response; the system allocated scarce resources among sovereign and quasi-sovereign participants through negotiated priority, common standards, and incident-level unified command. SO 3443 characterized this architecture as redundant and misaligned and ordered its governance bodies restructured for "clear authority, accountability, and annual performance standards" (DOI 2025a). Whether the neutral-broker design was an accident to be corrected or an adaptation to be understood is a question for Part V; this Part documents what the architecture is, why each piece exists, and how it actually behaved under load — because it is the baseline against which Part IV's changes must be measured, and because most of it remains in force beneath the new structure.

3.2 FIRESCOPE and the Invention of Incident Command

The architecture's foundation is Californian and post-catastrophic. The 1970 fire siege — hundreds of fires over thirteen days, sixteen deaths, more than seven hundred structures, and a response in which agencies could not talk to each other, did not share terminology, and duplicated or dropped functions across jurisdictional lines — produced a congressional appropriation and a Forest Service–Southern California partnership called FIRESCOPE (Firefighting Resources of California Organized for Potential Emergencies). Its two products organized the next half-century: the Incident Command System, and the Multi-Agency Coordination System (FIRESCOPE 1982; Chase 1980).

ICS solved the on-incident problem with a small set of design principles that have proven durable across every hazard they have been applied to: common terminology; modular organization that expands and contracts with the incident; manageable span of control; unity of command for every individual; and — the principle that makes multi-jurisdiction response possible at all — unified command, under which the agencies with jurisdiction

share a single set of objectives and a single plan without surrendering legal authority. MACS solved the off-incident problem: when demand exceeds supply across many simultaneous incidents, agency representatives set priorities and allocate jointly. The deep design insight of both, worth stating because the reorganization implicitly rejects it, is that the California architects did not attempt to unify the agencies; they unified the *grammar* the agencies used, leaving authority where law had put it. Interoperability was achieved by standardizing interfaces, not by consolidating institutions.

3.3 From NIIMS to NIMS: The National Frameworks

The wildland community nationalized ICS in the early 1980s as the National Interagency Incident Management System (NIIMS), carried by the interagency coordinating group described below. Two decades later, September 11 produced the second nationalization: Homeland Security Presidential Directive 5 (2003) directed a single National Incident Management System for all hazards and all jurisdictions, and NIMS (2004) adopted ICS wholesale — compliance tied to federal preparedness grants, which made the wildland community's grammar the legal grammar of American emergency management (DHS 2004). Above NIMS sits the National Response Framework, organizing federal support to states through Emergency Support Functions; ESF-4, Firefighting, has been coordinated by the Forest Service as primary agency, with the Stafford Act supplying the declaration machinery and the Fire Management Assistance Grant program supplying the 75-percent federal cost share that shapes state behavior as documented in Part II (DHS 2019; Stafford Act 1988).

Two facts about this layer matter for the as-built analysis. First, the wildland system predates and is only partially nested within the homeland security frameworks: wildland qualifications, dispatch, and doctrine run on their own machinery, and the seams between NWCG-qualified wildland organizations and NIMS-typed all-hazard organizations are a standing source of friction on interface fires where both respond. Second, the reorganization unsettles an anchor point: with the Forest Service's fire leadership internally restructured and its program proposed for transfer, the institutional home of ESF-4 — the federal firefighting function in every Stafford Act response, hurricane and earthquake included — becomes an open question that none of Part IV's instruments addresses.

The Stafford machinery's fire-specific instrument repays a closer look because it moves real money on real clocks and shapes behavior at every level below it. A Fire Management Assistance Grant can be requested by a governor while a fire is still burning, on a showing that the fire threatens such destruction as would constitute a major disaster; FEMA's regional administrator decides, frequently within hours, and approval opens 75-percent federal reimbursement of eligible suppression costs — mutual aid, state mobilization,

evacuation support, certain mitigation — from the declaration forward. The design is deliberately fast and deliberately suppression-shaped: it pays for fighting the fire, not for the fuels work that would have moderated it, and its threshold logic rewards demonstrating threat. The behavioral consequences documented in Part II follow directly, and so does a coordination fact that matters for the as-built analysis: FMAG runs through the emergency-management system — governor, FEMA, state emergency agencies — on a track institutionally separate from the wildland coordination machinery of the next section. On a major interface fire, the two tracks operate simultaneously on the same incident with different doctrines, different qualification systems, and different money. The seam between them is where the defining fires of Part I are actually governed, and no instrument in Part IV's record addresses it.

3.4 The Wildland Coordination Machinery

The wildland system's own machinery has four tiers, each with a deliberate and frequently misunderstood character. The National Wildfire Coordinating Group, established in 1976, is the standards body: it writes the position qualifications, training curricula, and operational standards — the PMS document series — that make a Florida state crew, a tribal engine, and a federal hotshot module interchangeable on a fireline. NWCG holds no line authority by design; it is a consensus body of federal, state, tribal, and local members, and its standards bind because every participant has agreed to them, not because anyone can order compliance (NWCG n.d.). The National Interagency Fire Center at Boise — descended from the 1965 Boise Interagency Fire Center — is co-location, not command: the agencies' national fire organizations and the National Interagency Coordination Center share a campus and a mobilization system. The Geographic Areas — historically ten or eleven — structure the middle tier: Geographic Area Coordination Centers move resources among their member units, and Geographic Area coordinating groups set priorities within the area. At the top, the National Multi-Agency Coordinating Group — NMAC — allocates the scarcest national resources among Geographic Areas when national Preparedness Levels 4 and 5 signal saturation.

Resource movement runs bottom-up by design: an incident orders through local dispatch; unfilled orders escalate to the GACC; orders the GACC cannot fill escalate to NICC, which sources nationally. Priority-setting runs top-down at saturation: NMAC decides which fires get the scarce crews, teams, and aircraft, using criteria — life safety, values at risk, probability of success — negotiated among the member agencies. The system's character is a brokered market with safety rules, and its performance record under saturation, while imperfect, is the empirical answer to a question the reorganization's premise assumes away: the legacy system's slowness was rarely located in the coordination machinery, which moves thousands of resources across the continent in days; it was located in decision seams the machinery faithfully expressed. Part IV documented this

machinery entering simultaneous revision — boundaries, NMAC composition, predictive services — under the new structure.

A concrete movement shows the machinery's grain. A Type 3 engine from a Georgia state forestry unit reaches a Montana fire by a chain that touches no commander: the incident's ordering manager places a resource order in the national ordering system; the local Montana dispatch cannot fill it and escalates to the Northern Rockies coordination center; Northern Rockies, at drawdown, places the order "up" to NICC; NICC offers it to Geographic Areas with availability; the Southern Area coordination center accepts and passes it to Georgia's state dispatch, which contacts the unit; the engine captain confirms availability and crew red cards; travel is resourced under the master agreement's billing provisions; and four days after the order, the engine checks in at a Montana incident base, its capability and cost knowable in advance because every link in the chain trusted the same standards. The transaction is bureaucratic, slow by tactical standards, and astonishing by intergovernmental ones — a state asset crossing the continent into a federal incident's command structure with no treaty, no contract negotiation, and no order given by anyone to anyone outside their own organization. The machinery executes thousands of such movements in a hard season. Whatever the legacy system's failures, this — the part the 2025–2026 redesign subjected to simultaneous boundary, governance, and predictive-services revision — was the part that demonstrably worked.

3.5 Mutual Aid, Compacts, and the Agreement Lattice

Beneath the federal machinery lies the lattice that actually delivers most initial response in America: mutual aid. California built the template — the 1950 Master Mutual Aid Agreement, elaborated through FIRESCOPE and the state's emergency services machinery into a system that moves municipal strike teams across the state in hours. Interstate movement runs through compacts: the regional forest fire protection compacts beginning with the Northeast in 1949, and the Emergency Management Assistance Compact of 1996, which generalizes state-to-state aid with liability and reimbursement terms pre-negotiated (EMAC 1996). The federal–state interface runs through the master cooperative wildland fire management agreements and their annual operating plans — the documents that set protection boundaries, billing, and reimbursement between each state and the federal agencies. Cost-share agreements, negotiated incident by incident on multi-jurisdiction fires, allocate suppression costs among responsible parties and are a notorious point of after-the-fact friction. This lattice is paperwork in the most consequential sense: when it is current, capacity flows; when an agreement lapses, or a counterparty's authority is unclear, or reimbursement stalls, capacity hesitates — rationally, per Part II. Part IV documented every major element of the lattice — the master agreement template, the reimbursement pipeline, the qualification crosswalks — placed under revision simultaneously, with the federal counterparty itself reorganizing.

3.6 The Agency Administrator Doctrine — The Legacy Baseline

At the center of the legacy architecture stood a doctrine this volume has referenced repeatedly and now states in full, because Part IV documented its migration and Part V analyzes the consequences. Under the doctrine, every fire on federal land had a single accountable official: the agency administrator — the line officer of the land management unit. The administrator's role had five elements. *Objectives*: strategic objectives for the fire derived from the unit's land and resource management plan — the documents that translate the organic-act missions of Part II into decisions about specific ground. *Decision*: selection and documentation of the management strategy through the decision-support process of record — in the modern era, the Wildland Fire Decision Support System, whose published decisions the administrator signed (NWCG 2021; USDA Forest Service 2025). *Delegation*: a written delegation of authority to the incident commander, bounding the IC's discretion — what the team was authorized to do, what required the administrator's approval, what the administrator's intent was. *Support and oversight*: the team worked for the administrator; briefings, evaluations, and closeout ran to the administrator. *Accountability*: reviews, cost responsibility, and answerability for outcomes — to the agency, to cooperators and neighbors, and after severe outcomes, to formal review processes the administrator's agency convened.

The doctrine carried a development system, uneven but real: agency administrator qualification pathways, position task books certified at regional level, and the apprenticeship of line officers serving as trainees on incidents (USDA Forest Service 2025). And it embodied a specific theory of the problem: that fire strategy is a land management decision with an emergency attached — that the question "how hard do we fight this, where, at what cost and what damage" is inseparable from "what is this land for," and should therefore be answered by the official who answers for the land. The doctrine's frictions were real and documented: administrators of widely varying fire fluency; risk-averse decisions driven by career exposure; slow decisions at jurisdictional seams; the agency "militia" thinning beneath it. The reorganization's implicit theory is that those frictions condemned the doctrine. The legacy theory was that the frictions were the cost of keeping strategy attached to the land. The collision of those two theories — unexamined in any instrument Part IV reviewed — is the doctrinal center of this entire volume.

The doctrine's working documents repay a closer look, because they are what the migration of Part IV actually relocated. The WFDSS decision is not a form; it is a published strategic argument — incident objectives and requirements drawn from the unit's plans, a course of action with its rationale, risk and cost analysis, and the administrator's signature making one official's judgment reviewable in writing — the system's mechanism

for forcing the land's purpose and the fire's management into one documented decision. The delegation of authority letter is equally specific: it names the incident commander's authorities and their limits, the actions reserved to the administrator (typically including significant strategy changes, dozer line in sensitive ground, retardant near water, structural commitments), the administrator's priorities and intent, and the resource advisors who carry the land's detail to the line. Together the two documents *are* mission command in the doctrinal sense this book's parent volume develops — intent and bounded initiative, in writing, between an accountable principal and an empowered executor. The Part IV question — who signs these now, against whose objectives, under an authority that cannot be delegated out of the fire chain — is therefore not administrative trivia; it asks where the system's written conscience went.

> The baseline, compressed. The legacy architecture standardized interfaces and left authority with the land: common grammar (ICS), consensus standards (NWCG), brokered allocation (GACC/NMAC), negotiated agreements (the lattice) — and at the center, one accountable land officer per fire, holding objectives, decision, delegation, and consequence together. Part IV documented the center's relocation into a fire-functional chain of command while the surrounding machinery entered simultaneous revision. The rest of the architecture was built to orbit a center that has moved.

3.7 Qualifications: The Currency of Interoperability

The system's deepest infrastructure is invisible: the qualification system. NWCG's standards — PMS 310-1 and the position catalog — define every fireline and overhead role by required training, experience, task-book performance, and currency; the incident qualification card, the "red card," is the portable credential that lets the brokered market of Section 3.4 function, because a resource order filled from three time zones away arrives with known capability (NWCG n.d.). Three facts about this system bear on everything downstream. It is slow by design: producing an operations section chief or incident commander is a matter of many seasons of task-book progression — the command cadre on the 2030 fires is determined by who is in the pipeline now. It is consensus-maintained: the standards bind across sovereignty because the NWCG members agree, which makes the standards body's health a national-capability variable — and that body sits among the governance structures ordered restructured. And it is fed by the militia: a meaningful share of overhead qualification has historically been carried by agency employees whose primary jobs are not fire — the same line officers and resource staff whose relationship to the fire mission the reorganization just redefined. The qualification consequences of telling a bureau workforce that fire now "works for and within fire" were not addressed in any instrument Part IV reviewed; Part V traces them.

The militia's mechanics merit precision, because the institution is easy to romanticize and easier to undervalue. A militia qualification survives on three supports: a supervisor willing to release the employee in season, an agency culture that counts fire assignments as career capital rather than absence, and the employee's own calculation that the training hours, fitness standards, and family cost are worth it. All three supports are agency-internal — which is exactly why the militia thinned as agencies professionalized fire and why the reorganization's fire/land split removes the supports entirely for bureau employees whose agency no longer owns the mission. The cross-credentialing seam compounds the picture at the system's edges: NWCG qualifications, state certification systems, and the structural fire community's professional standards recognize one another only partially, so a municipal battalion chief fully competent in his own system arrives at a wildland interface fire as, formally, a lesser-qualified resource — and vice versa on a structure-defense assignment. Each community's standards are locally rational; the seams between them are where interface incidents — the defining incidents of Part I — staff their command structures, and the crosswalk agreements that paper those seams are among the documents Part IV showed under simultaneous revision.

3.8 How the Architecture Allocates Scarcity

Finally, the architecture's behavior under maximum load — the condition Part I established as the system's real test. As national activity rises, Preparedness Levels escalate to PL5; drawdown rules hold minimum capability in place; severity funding pre-positions resources against forecast risk; and allocation becomes openly political in the neutral sense: NMAC ranks fires, and ranked last means doing without. Surge beyond the system runs through the military — defense support and MAFFS airtankers — and through international agreements with Canada, Australia, and New Zealand. The honest description of the system at PL5 is triage by negotiated priority among sovereigns, executed through the common grammar. It is slower than command and far more durable: it functions because every participant's local rationality is accommodated rather than overridden — the state keeps its statutory duty, the tribe its sovereignty, the county its authority, and all of them keep showing up. That durability-through-accommodation is the property most at risk when the system's federal core converts from broker to commander, and it is the property the friction map in Part V weighs everything against.

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Volume One · Part IV — The Reorganization As-Built

September 2025 – June 2026: instruments, authorities, structure, and congressional posture

4.1 Purpose, Scope, and Method

This Part documents the federal wildland fire reorganization as it actually exists in June 2026 — the directing instruments, the organization they produced, the authorities that moved and the authorities that did not, and the posture of Congress toward all of it. It is deliberately descriptive. The analytical work of Volume One — the mission divergence among the consolidated agencies, the planning-horizon mismatches, the cultural and qualification-system collisions, and the local rationality of state, tribal, and local actors whose decisions the new architecture must accommodate — depends on first establishing, with precision, what was ordered, what was built, and what remains unresolved. Parts II and III supply the institutional and doctrinal baselines against which the changes documented here are measured; Part V performs the synthesis.

The volume's design follows the discipline used in planning for complex operations: appreciate the context, define the problem, develop an approach — in that order, because the order is the safeguard. A problem statement written before the context is appreciated inherits its author's blinders, and an approach built on that statement optimizes the wrong system with great efficiency. Volume One is the appreciation, executed deliberately and in full; it does not define the problem, and the restraint is structural rather than stylistic. Part VI closes the volume with the register of conditions and unanswered questions that any honest problem definition must account for, and Volume Two opens by writing that definition before any approach is developed. The reorganization documented in this Part is, among other things, a live demonstration of what the discipline exists to prevent — Section 4.6.4 records an approach committed to before the mandated analysis could begin — and a volume structured to refuse the same error makes part of its argument through its architecture. This Part's contribution to the appreciation is the as-built record: what the reorganization actually is, as distinct from what it was announced to be or feared to be.

Three disciplines govern this Part. First, claims about what the reorganization did rest on the directing instruments themselves — Executive Order 14308, Secretary's Orders 3443 and 3448, the USDA secretarial memoranda, the appropriations language, and the interagency standards documents that operationalize them — not on press characterizations of those instruments. Where press accounts or congressional

correspondence supply facts the instruments do not, they are cited as such. Second, the distinction between what an instrument *orders* and what the organization has *operationalized* is maintained throughout, because in June 2026 the gap between the two is itself a finding. Third, ambiguity is reported as ambiguity. Several load-bearing questions — most importantly, the precise disposition of agency administrator authority during the transition — are answered differently by different authoritative documents, and this Part records the conflict rather than resolving it by assumption.

The period covered runs from the issuance of Executive Order 14308 on June 12, 2025, through the first week of June 2026 — roughly the new organization's first five months of existence and the opening of its first fire season. The reader should hold one structural fact in view throughout: everything documented here was built by executive action alone. Congress has not authorized the new agency, has declined to fund it, and has conditioned any future consolidation on a feasibility study that had not yet begun as of this writing. The as-built configuration is therefore not a settled end state. It is a contested intermediate condition, and the contest is part of the record.

4.2 The Directing Instruments

4.2.1 Executive Order 14308 (June 12, 2025)

Executive Order 14308, "Empowering Commonsense Wildfire Prevention and Response," signed June 12, 2025, and published at 90 Fed. Reg. 26175, is the root authority for everything that follows (Exec. Order No. 14308 2025). Its purpose section frames the problem through the January 2025 Los Angeles fires, characterizing slow response as the product of mismanagement and lack of preparedness at the state and local level, and federal capability as encumbered by "unnecessary regulation and bureaucracy." The framing matters analytically: the order locates the failure in administrative friction and fragmentation, not in the structural conditions — fuels, climate, development patterns, jurisdictional design — that Parts I through III of this volume document. The remedy follows the diagnosis.

The order's operative provisions run in four directions. First and most consequentially, it directs the Secretaries of the Interior and Agriculture to consolidate their wildland fire programs "to the maximum degree practicable and consistent with applicable law," reaching offices, coordinating bodies, programs, budgets, procurement processes, and research (Exec. Order No. 14308 2025). The qualifier is load-bearing: "consistent with applicable law" is the phrase on which every subsequent dispute about congressional authorization turns. Second, it directs the two departments, in consultation with Commerce and the agencies represented at the National Interagency Fire Center, to produce a technology roadmap within 180 days — artificial intelligence, data sharing,

modeling and mapping, ignition detection — aimed explicitly at increasing *state and local* firefighting capability. Third, it directs identification of rules that impede prevention, detection, or response, with resulting rulemaking reflected in the Fall 2025 Unified Regulatory Agenda, alongside performance metrics for wildfire readiness. Fourth, it opens a regulatory track on utility-caused ignition, directing Interior, Agriculture, Energy, and the Federal Energy Regulatory Commission to consider rulemakings establishing best practices for reducing ignition risk from the bulk-power system.

Two features of the order deserve notice before turning to its implementation. The order is directed at *capability and friction*, not at command architecture: nothing in its text addresses agency administrator authority, line officer roles, or the incident management doctrine through which federal, state, and local resources combine on an incident. Those changes arrived later, in departmental instruments, as implementation choices rather than presidential direction. And the order carries the standard savings clauses — it creates no enforceable rights, must be implemented consistent with applicable law and subject to appropriations — which is to say it presupposes the cooperation of a Congress that, as Section 4.6 documents, declined to provide it.

4.2.2 Secretary's Order 3443 (September 10, 2025)

Interior's implementing instrument is Secretary's Order 3443, "Elevating and Unifying DOI's Wildland Fire Management Program," signed by Secretary Doug Burgum on September 10, 2025 (DOI 2025a). It is the single most important document for understanding what the Department intended to build, and it repays close reading because several of its provisions are in visible tension with one another — tensions that the as-built organization inherited.

The order grounds itself in four authorities: the executive order; section 2 of Reorganization Plan No. 3 of 1950, the Eisenhower-era instrument that vests bureau functions in the Secretary and permits internal reassignment; the "Service First" interagency authority most recently codified at section 315 of Public Law 118-234; and the Department's organic land management statutes (DOI 2025a). This authority stack is itself an analytical object: Reorganization Plan No. 3 permits the Secretary to rearrange functions *within* the Department, which is why the Interior-only consolidation could proceed by secretarial order while the Forest Service transfer — an interdepartmental move — could not. The legal architecture predetermined the two-stage structure of the reorganization before any policy choice was made.

The background section describes the pre-reorganization arrangement Part III treats in full: four bureaus — the Bureau of Indian Affairs, Bureau of Land Management, National Park Service, and U.S. Fish and Wildlife Service — delivering fire mitigation and response across more than 500 million acres of public and tribal land, with the Office of Wildland Fire coordinating policy and budget from the Office of the Secretary and the Office of

Aviation Services holding aviation standards (DOI 2025a). The order acknowledges the National Wildfire Coordinating Group as the standing framework through which federal, tribal, state, and local organizations maintain common training and certification — an acknowledgment worth flagging, because the interoperability the order takes as given is a product of exactly the distributed, negotiated, consensus-based machinery the reorganization elsewhere characterizes as redundant.

The order then makes a definitional move with consequences that run through everything built afterward. “Unification,” it states, “shall not be considered synonymous with ‘consolidation’”; unification means the strategic alignment of resources — aviation and vehicles; pay, benefits, retirement, training, and human resource systems; “consistent application of firefighting strategies, which differs from tactics that are situational”; early-detection technology; and communication and life-safety tools (DOI 2025a). The strategy–tactics distinction embedded in that list is doctrinally significant. It asserts that strategy can be standardized centrally while tactics remain situational — a clean division on paper that Part V will examine against the operational reality that strategy on an incident is precisely where land management objectives, which differ by agency mission, enter the decision process.

Section 4 contains the structural directive. The USWFS is to be established “reporting directly to the Secretary of the Interior or his designee.” By October 31, 2025, the six affected entities were to finalize a plan for “consolidating line authority and management of the entirety of the wildland fire program,” with implementation commencing January 12, 2026 (DOI 2025a). A USWFS Fire Chief — a Senior Executive Service position requiring “appropriate wildland fire management experience” — is established to lead it. The plan was to be developed with outside input, including from “State, Tribal, and local partners with relevant wildfire experience,” and the order directs the new organization to “reduce layers to ensure prompt, effective decision-making” (DOI 2025a).

Then comes the provision on which the authority analysis in Section 4.4 turns. Section 4(e) provides that “authority over the program, its appropriations, firefighters, and managers will be shifting to the USWFS Fire Chief,” while “line officers in the Department’s land management Bureaus will continue to share responsibility for delivering on the wildland fire mission,” and closes with an explicit savings clause: “Nothing in this Order shall be construed as relieving Bureau line officers from their responsibility to manage public lands in a manner that aggressively addresses their relevant wildfire risk” (DOI 2025a). Authority moves; responsibility stays. The order treats this as collaboration language. Read structurally, it is a deliberate separation of authority from accountability, executed in a single paragraph, and it is the most consequential sentence in the instrument.

> Load-bearing provision. SO 3443 § 4(e) shifts authority over the program, its appropriations, firefighters, and managers to the USWFS Fire Chief while expressly

> retaining bureau line officers' responsibility for wildfire risk on the lands they manage. Authority migrated; accountability did not. Every subsequent ambiguity documented in this Part descends from this provision.

Section 5 is a different kind of instrument — a dense schedule of joint DOI–USFS actions to be executed under existing authorities while full unification "awaits." The deadlines compress an extraordinary amount of institutional change into the months immediately preceding a fire season: comprehensive modernization of federal fire aviation (timeline proposal within 30 days); evaluation and restructuring of "existing coordination and governance bodies" to eliminate redundancy, with new governance structures carrying "clear authority, accountability, and annual performance standards" within 120 days; qualification and training standardization and skills crosswalks with the Department of Homeland Security, tribes, states, and local governments within 180 days; revision of the Master Interagency Agreement within 120 days; joint procurement, contracting, and payment centers under Service First authority; evaluation and possible modification of Geographic Area boundaries within 120 days; consolidation of Predictive Services into a centralized national Fire Intelligence function; standardized position descriptions and a joint Administratively Determined hiring program and pay plan within 180 days (DOI 2025a).

The intergovernmental provisions of Section 5 — revision of the Master Cooperative Wildland Fire Management and Stafford Act Response Agreement template, modernization of grants and agreements, and an instruction to identify and promptly remedy any backlog of reimbursements owed to state, local, or tribal partners — are treated in Section 4.5 of this Part, because they are the points at which the federal reorganization makes direct contact with the non-federal systems that deliver the majority of the nation's structural and initial-attack capacity. The remaining provisions address research governance, a unified wildfire-risk mapping tool, a five-year emergency stabilization and rehabilitation framework, personal protective equipment standards, bulk-power permitting, regulatory barriers to prescribed fire and retardant use, and coordination of post-fire litigation positions — including direction that settlements advance ignition-risk reduction on the bulk-power system (DOI 2025a).

Finally, Section 6 designates the Assistant Secretary for Policy, Management and Budget — not a fire officer — as the Department's lead official for implementing the executive order, and assigns the Assistant Secretary for Indian Affairs responsibility for ensuring consultation and for ensuring the unification does not impede effectiveness in Indian country (DOI 2025a). The order is, by its own terms, an internal management instrument creating no enforceable rights, subordinate to any conflicting law or regulation.

4.2.3 USDA Secretarial Memorandum 1078-017 (September 2025)

On the same day Interior issued SO 3443, Secretary of Agriculture Brooke Rollins issued a secretarial memorandum — SM 1078-017 — restructuring the Forest Service's internal fire organization without transferring anything to Interior (NACo 2025; USDA 2026). The two instruments were announced jointly as coordinated implementation of EO 14308 (DOI 2025b), but they are structurally different acts: Interior unified across bureaus into a new entity; Agriculture consolidated *within* a single agency it already controlled.

The memorandum directed development of proposals for restructuring the Forest Service's internal wildland fire organization, "consolidating fire leadership that reports directly to, and is accountable to, a Forest Service Deputy Chief," with implementation beginning April 1, 2026, and a parallel assessment of fire staffing, organization, position descriptions, and job classifications for standardization on the same timeline (Smokey Wire 2025). The significance for this volume's purposes lies in what the restructuring does to the line officer role. Under the legacy arrangement, Forest Service district rangers and forest supervisors — land managers — hold agency administrator responsibility for wildfires on their units, exercising it in coordination with county commissioners and other local authorities; the Rollins memorandum moves that leadership responsibility upward and inward to a fire-functional deputy chief, while transferring no authority to the Interior Department (Western News 2025). Commentators noted at the time that the result is a fire organization administratively "stovepiped" within the agency, on the model of its law enforcement function (Smokey Wire 2025).

The parallel matters. Both departments, by separate instruments and in different legal postures, executed the same conceptual move in the same week: the relocation of incident-governing authority from geographically distributed land management line officers to functionally consolidated fire leadership. Neither instrument articulates a doctrine for how land management objectives — which differ by agency organic act and by unit — enter strategic fire decisions once the officials accountable for those objectives no longer hold the decision authority. That doctrinal silence, present at the origin in both departments, is the as-built condition this volume's remaining parts must analyze.

4.3 The Stand-Up: Secretary's Order 3448 and the USWFS

4.3.1 Establishment, Placement, and Leadership

Secretary's Order 3448, "Establishment of the U.S. Wildland Fire Service," signed January 12, 2026, executed the plan SO 3443 had ordered (DOI 2026a). The USWFS was established within the Office of the Secretary — not as a bureau, a distinction with legal weight, since establishing a new bureau within Interior requires an act of Congress — and absorbed the wildland fire operations of the Bureau of Indian Affairs, Bureau of Land

Management, National Park Service, U.S. Fish and Wildlife Service, Office of Wildland Fire, and Office of Aviation Services (DOI 2026b; U.S. Senate ENR 2026). The Department announced the launch as the unification of fire management across more than 500 million acres of public and tribal land (DOI 2026b). The same week, Congress passed appropriations legislation declining to fund the new organization — a juxtaposition treated in Section 4.6 (KUNR 2026).

Brian Fennessy was appointed the inaugural chief, having retired from the Orange County Fire Authority on January 2, 2026, to take the position. His profile is itself a datum about the organization's intended character: a career that began in 1978 on Forest Service and BLM hotshot and helitack crews, then thirty-five years in municipal all-hazard fire service — San Diego Fire-Rescue, ultimately as chief, then OCFA — with a reputation built on aviation innovation and aggressive initial attack (HSToday 2025; Capital Press 2026). The selection placed at the head of the federal land-management fire apparatus a leader whose formative institutional experience is the California municipal/contract-county model, in which fire agencies hold their own command authority and land management agencies are cooperators. Interagency meeting records from the stand-up period show the initial executive structure beneath Fennessy: four SES deputy directors — Grant Beebe (Policy), Chris Wilcox (Operations), Suzie Bates (Aviation), and a fourth position for budget, management, and administration initially staffed by detail — with assistant chief and division chief selections still pending in late January (NMAC 2026).

4.3.2 The Authority Delegation and the Assignment Doctrine

SO 3448's central legal act is a delegation: it conveyed to the Director of the USWFS "all authority necessary … to fulfill the Department's wildland fire mission" (NIFC 2026). The breadth is the point — this is not an enumerated delegation but a mission-scoped one, and it consolidated in a single official authorities that had previously been distributed across four bureau directorates and exercised in the field by hundreds of line officers under bureau-specific delegations.

The 2026 Interagency Standards for Fire and Fire Aviation Operations — the Red Book, the operational policy document of record — records how that authority is administered downward, and the mechanism deserves precise statement. Authorities held under SO 3448 "may only be assigned, not formally delegated or re-delegated," by the USWFS Director to other positions *within the USWFS*; for any position holding assigned authority, the deputy position holds the same (NIFC 2026). The distinction between assignment and delegation is not pedantry. Under the legacy system, authority flowed through delegation down land-management lines — Secretary to bureau director to state or regional director to field-unit line officer — and an incident commander received a written delegation of authority from the agency administrator whose unit was burning. Under the assignment doctrine, authority remains legally vested in the Director and is exercised by USWFS fire

officers as assignees; it does not pass through, and cannot be re-delegated into, the land management chain at all. The fire authority circuit now closes entirely inside the fire organization.

In April 2026, the USWFS issued an Authorities/Actions framework document intended to standardize how authorities are assigned, exercised, and reassigned across the organization, with Fennessy stating that it is "imperative that every employee understands how authorities are structured and assigned within the USWFS" (Fire and Safety Journal Americas 2026). That such a document was necessary three months after stand-up — and three months into the authority structure's existence — is evidence of the condition it was issued to remedy: field-level uncertainty about who now holds which authorities formerly held by line officers. SO 3448 itself anticipated the condition, acknowledging "a transition period in which there may be overlapping authorities and responsibilities with respect to wildland fire management," during which the Department is to "diligently operationalize the unified USWFS, while simultaneously ensuring that there is no negative impact on its missions" (NIFC 2026). The instrument that created the ambiguity also documented it.

A further transitional complication appears in the contemporaneous record. At stand-up, the Secretary directed all bureau heads to take necessary actions to transition their fire resources and workforces to the USWFS — while simultaneously providing that all current bureau fire directors "would maintain all their current authorities and delegations" during the transition (Government Executive 2026). For some interval, therefore, three authority regimes coexisted: the Director's plenary mission-scoped delegation, the legacy bureau fire directors' retained delegations, and the residual line officer responsibilities preserved by SO 3443 § 4(e). The instruments provide no precedence rule among them.

4.3.3 Field Structure: The Geographic Area Model

Organizationally, the USWFS abandoned bureau-aligned field structure for a Geographic Area model. Interagency coordination records from January 2026 describe the design: bureau fire programs reorganized with all DOI fire and aviation personnel moved into a single USWFS chain of command — in the language of the meeting record, fire "will work for and within fire" — with Regional Fire Chiefs serving as "the frontline Line Officer for the USWFS" and issues elevating to a Geographic Area Director (NMAC 2026). The phrase is worth pausing on. "Line officer" is a term of art in federal land management: it has meant, for over a century, the official in the land-management chain of command — district ranger, forest supervisor, field office manager, park superintendent, refuge manager — who holds delegated authority over a unit of land and everything that happens on it. The USWFS usage relocates the term to a fire officer holding no land management portfolio. The vocabulary migrated with the authority.

The supporting machinery moved on compressed timelines. The Geographic Area boundary review SO 3443 had ordered on a 120-day clock was executed in eight weeks, with recommendations delivered to fire leadership on January 9, 2026, developed with DOI, USDA, and state representation (NMAC 2026). The same records note that the composition of the National Multi-Agency Coordinating Group — the body that allocates scarce national resources at high preparedness levels — "will change," and that the Forest Service had moved into interim operations under its own secretarial memorandum, creating senior advisor roles to coordinate directly with the USWFS chief (NMAC 2026). Predictive Services consolidation into a national Fire Intelligence function, ordered by SO 3443, proceeded in parallel. Each of these is, individually, an administrative adjustment; collectively they constitute a redesign of the national resource-allocation and intelligence machinery in the months immediately preceding fire season, executed concurrently with the workforce transition itself.

4.3.4 The Transition Plan and Operating Principles

The Department's transition plan — a seventeen-page document released publicly in the spring of 2026 — supplies the operating principles under which the conversion is being executed (DOI 2026c; Hotshot Wakeup 2026). Its first principle is that the transition must in no way impede the wildland fire mission. Its second restates the authority transfer in unambiguous terms: the Secretary has placed full responsibility for wildland fire-related responsibilities and authorities, formerly of the bureaus and offices, in the USWFS. Its third makes coordination among the USWFS, the bureau partners, and the Solicitor's Office "essential" to both USWFS programs and the bureaus' land stewardship missions. Its fourth commits that projects "will remain locally led, with sound decision-making at the field and geographic levels to meet program objectives and leadership intent" (DOI 2026c).

On protection responsibility the plan is categorical: "The USWFS has wildfire protection responsibility for all BIA, BLM, NPS, and FWS lands" (DOI 2026c). Read together with the operating principles, the plan asserts simultaneously that authority is fully centralized and that decision-making remains local — a pairing that is coherent only if "leadership intent" is doing the doctrinal work of mission command, and the plan does not specify the mechanism by which a land-managing bureau's objectives become the leadership intent of a fire organization that does not work for that bureau. The plan, like the orders before it, defers the question.

4.3.5 First-Season Operational Posture

The clearest evidence of the new organization's strategic disposition is the operational guidance under which it entered the 2026 season. The Red Book's departmental direction establishes "the presumption of a full suppression strategy applied to every wildfire,"

with all unplanned ignitions receiving a suppression response until conditions permit otherwise, direct suppression as the default over indirect approaches, and suppression actions to be "prompt, decisive and based on values at risk" balanced against firefighter safety and probability of success (NIFC 2026).

> As-built strategic posture. The unified organization's first-season guidance presumes full suppression of every unplanned ignition across all four bureaus' lands — lands whose governing statutes range from commercial trust-resource protection to ecological-process preservation. The strategy-standardization that SO 3443 defined as the core of "unification" is, in its first operational expression, the suppression default applied uniformly across divergent missions. Whether that posture is a transitional season-one conservatism or the durable character of the organization is among the most consequential open questions this volume tracks.

The significance of this posture is developed in Part V against the agency-mission baselines of Part II; it is recorded here because it is not commentary but published interagency standards — the as-built strategic doctrine of the as-built organization. For four decades, federal fire policy moved — unevenly, with reversals — away from uniform suppression toward response commensurate with land management objectives, a movement formalized in the 1995 and 2001 Federal Wildland Fire Management Policy and embedded in every bureau's fire planning. Season one of the unified service opens with the presumption running the other way.

4.4 The Authority Migration: What Moved, What Stayed, What Is Ambiguous

4.4.1 The Legacy Baseline

Part III documents the agency administrator doctrine in full; the four-sentence version needed here is this. Under the legacy system, the agency administrator — a line officer of the land management agency: forest supervisor, district ranger, BLM field office or district manager, park superintendent, refuge manager, BIA agency superintendent — held the authority and the accountability for every fire on the unit. The administrator set strategic objectives derived from the unit's land and resource management plans, selected the management strategy through the decision-support process of record, issued the incident commander a written delegation of authority bounding the IC's discretion, and answered for the outcome — to the agency, to cooperators, and where outcomes were severe, to reviews and boards of inquiry. Fire staff at every level served as staff officers: advisors, planners, and executors within authority the line conferred. The design logic was that fire strategy is a land management decision with a fire problem attached, not a

fire decision with land management consequences — and that the official accountable for the land should govern the decisions that determine what the land becomes.

4.4.2 What Moved

Against that baseline, the instruments document the following transfers within Interior. Programmatic authority over the wildland fire program, its appropriations, its firefighters, and its managers moved to the USWFS Director (DOI 2025a; DOI 2026a). The workforce moved: all DOI fire and aviation personnel were realigned into a single USWFS chain of command organized by Geographic Area rather than by bureau (NMAC 2026). Protection responsibility moved: the USWFS holds wildfire protection responsibility for all BIA, BLM, NPS, and FWS lands (DOI 2026c). The authority-administration mechanism moved: fire authorities are now assigned within the USWFS rather than delegated down land management lines (NIFC 2026). And the strategic-decision function that defined the agency administrator role moved in substance: a Regional Fire Chief structure now constitutes the USWFS's own "line," and the strategy-setting presumption for season one is established centrally in departmental guidance rather than unit by unit (NMAC 2026; NIFC 2026). On the Agriculture side, the parallel internal move — fire leadership consolidated under a single deputy chief, with incident leadership responsibility relocated from district rangers and forest supervisors — was directed for implementation beginning April 1, 2026 (Smokey Wire 2025; Western News 2025).

It bears stating plainly, because it is the heart of the matter this volume exists to examine: the officials now exercising strategic fire authority — the USWFS chief, deputy directors, Geographic Area directors, and regional fire chiefs — are drawn from a professional population that has never held these authorities. Under the legacy doctrine they were staff officers by design. The reorganization did not merely re-draw boxes; it inverted a century-old line–staff relationship without a published doctrine, training pipeline, or qualification standard for the inverted role. No instrument in the record establishes what qualifies a regional fire chief to weigh a national park's enabling legislation against a grassland district's grazing permittees when the same fire burns across both — the judgment the agency administrator system, whatever its frictions, was built to supply.

4.4.3 What Remained

Three things did not move. First, land management accountability: SO 3443 § 4(e) expressly preserves bureau line officers' responsibility to manage public lands in a manner that aggressively addresses wildfire risk, and the transition plan makes coordination with bureau leadership and integration with "local resource management priorities" a standing obligation (DOI 2025a; DOI 2026c; Smokey Wire 2026). Second, the statutory missions themselves: no organic act was amended; the lands the USWFS

protects remain governed by the same divergent statutes — trust responsibility, multiple use, park preservation, refuge purposes — that Part II documents. Third, the interagency framework: the National Wildfire Coordinating Group qualification system, the cooperative agreement structure, and the incident management doctrine through which states, tribes, and local governments engage federal incidents remain formally in place, even as the governance bodies above them are restructured (DOI 2025a).

4.4.4 The Authority–Accountability Seam

The as-built result is a documented separation between the authority to decide and the accountability for consequences. A park superintendent remains answerable — statutorily, professionally, and publicly — for the condition of the park, including what fire does to it, while the strategic decisions that determine what fire does to it are made by officers of another organization under a department-wide suppression presumption, exercising authorities that cannot be delegated back. The instruments manage this seam with coordination language: “share responsibility,” “close coordination,” “essential” collaboration, “locally led.” Coordination language is what organizational designs produce when they have separated two things that the work requires to be joined and cannot specify the joint.

> The seam, stated operationally. When strategy authority and land accountability live in different organizations, every consequential fire decision becomes a negotiation conducted under time pressure between parties with asymmetric stakes: the fire organization owns the decision and the suppression-cost exposure; the land organization owns the hundred-year consequences. The legacy system resolved this by fusing both in one official. The as-built system resolves it by memorandum. The 2026 season is the first full-scale test of whether memorandum is enough, and Part V treats the question in depth.

Two further ambiguities complete the as-built authority picture. The instruments are silent on the disposition of the agency administrator function itself for incident management purposes — who signs the delegation of authority to an incident management team on, say, a complex burning across NPS and BLM jurisdictions in August 2026, and under which document. Interagency operating standards have been amended ad hoc to bridge the gap during transition, with the Red Book’s transition guidance providing that nothing in it shall be interpreted to disrupt or impede prompt and efficient response (NIFC 2026) — a savings clause performing doctrinal work. And the instruments are silent on review and investigation architecture: the legacy accountability mechanisms (administrator-convened reviews, bureau serious-accident protocols) presupposed an administrator with authority over the incident. Whose review convenes on the first severely adverse outcome of the unified era — and whether its findings bind an

organization that does not answer to the land manager — is unresolved in the published record.

4.5 Intergovernmental Provisions As-Built

4.5.1 State, Tribal, and Local Provisions in the Directing Instruments

The reorganization is a federal act, but the system it reorganizes is not a federal system. The majority of the nation's firefighting capacity — and nearly all of its structural protection, evacuation authority, and emergency management machinery — belongs to states, tribes, counties, municipalities, and fire districts whose participation in federal incidents runs through agreements, compacts, and the common qualification framework. The directing instruments engage this reality at specific points, and those points are catalogued here; the capabilities, incentives, and local rationality of the non-federal actors themselves are the subject of Parts II and III, and the friction analysis belongs to Part V.

EO 14308's capability provisions are aimed primarily *at* state and local government: the technology roadmap is framed as increasing wildfire fighting capability at the state and local levels, and the order directs a risk-informed approach consistent with the administration's broader preparedness policy of shifting readiness responsibility toward states and localities (Exec. Order No. 14308 2025). SO 3443 requires that the unification plan be formulated with outside input from state, tribal, and local partners with relevant wildfire experience; orders qualification and training standardization with skills crosswalks reaching DHS, tribes, states, and local governments on a 180-day clock; and directs a formal stakeholder process for the cooperative-agreement work (DOI 2025a). The Assistant Secretary for Indian Affairs carries an explicit obligation to ensure tribal consultation and to ensure the unification does not impede effectiveness in Indian country — the only mission-specific protection clause in the order, reflecting the trust responsibility's distinct legal status (DOI 2025a).

4.5.2 Coordination Machinery Under Revision

Four pieces of the standing intergovernmental machinery were placed under simultaneous revision. The Master Cooperative Wildland Fire Management and Stafford Act Response Agreement template — the instrument through which state forestry agencies and federal agencies exchange resources, billing, and reimbursement — was ordered revised within 120 days to simplify structure, streamline billing, and expedite review of new agreements (DOI 2025a). Grants, agreements, and assistance processes were ordered modernized and consolidated, with an instruction to identify and promptly remedy any backlog of reimbursement owed to state, local, or tribal partners for past wildfire activity — an instruction whose presence in the order is itself evidence of the condition it addresses

(DOI 2025a). Geographic Area boundaries — which structure the coordination centers through which non-federal resources mobilize — were reviewed and recommendations delivered in January 2026 with state representation in the process (NMAC 2026). And the national multi-agency coordination architecture itself, including NMAC composition, was identified for change as the USWFS assumed its position in the system (NMAC 2026).

The pattern to record: every interface through which a state forester, a county fire chief, or a tribal fire program touches the federal system — the agreement template, the reimbursement pipeline, the qualification crosswalk, the geographic coordination structure, the national allocation body — entered revision in the same six-month window in which the federal side of each interface was itself being reorganized, ahead of fire season. Each revision is individually defensible; several were overdue. The simultaneity is the system-level fact.

4.5.3 What the Instruments Assume About Non-Federal Partners

Read as a set, the instruments embed three assumptions about the non-federal system that Part V will test. First, that interoperability is durable under reorganization — that the common qualification and certification framework will continue to function while the governance bodies that maintain it are restructured for "clear authority" and reduced redundancy. Second, that non-federal engagement is primarily an administrative-friction problem — billing, reimbursement, agreement complexity — rather than an incentive and capability problem rooted in who bears cost and risk in the wildland-urban interface. Third, that a unified federal command structure simplifies the intergovernmental picture from the partner's side. The third assumption deserves a marker now: from the perspective of a state agency or county that calibrated decades of agreements, dispatch relationships, and protection-boundary arrangements to four federal bureaus with known missions and known administrators, the replacement of those counterparties with a new organization whose authorities were still being clarified in April of its first year is not experienced as simplification. It is experienced as counterparty risk — and the local decisions it produces, rational from where each partner stands, are part of the environment the new system must operate in whether or not they serve an idealized national response.

4.6 The Congressional Posture

4.6.1 FY2026 Appropriations: Funding Denied, Dual Structure Preserved

Congress's response to the reorganization is unambiguous in the appropriations record. The administration's FY2026 request sought roughly $6.5 billion for a consolidated USWFS — the budget documents anticipated approximately $3.7 billion in operations and

$2.85 billion in suppression reserve, with the Forest Service's congressional justification correspondingly zeroing its own wildland fire accounts (DOI 2025c; Mountain Journal 2026a). The final FY2026 Interior, Environment, and Related Agencies appropriations declined. The Senate Appropriations Committee's summary stated that the bill "does not endorse the consolidation of federal wildland firefighting into one agency," and instead specifically funded the longstanding dual structure — Forest Service and Interior both — to preserve Congress's ability to consider legislative proposals for a change of this magnitude (Wildfire Today 2026). The Department proceeded with the Interior-internal stand-up anyway, on the position that no new funds were being obligated and no structural change requiring congressional authorization had occurred — while positioning the USWFS in the Office of the Secretary, conferring programmatic authority, and directing the team to take appropriate steps to provide funding for it (Government Executive 2026).

> The as-built fiscal condition. As of June 2026 the USWFS exists, employs the Department's fire workforce, and holds protection responsibility for half a billion acres — and operates without a congressional appropriation of its own, funded through the legacy account structures of the organization it replaced. An agency built by executive action and funded by accounting is durable exactly as long as the executive's position holds and no appropriations rider forecloses it. Field-level planning horizons — hiring, contracting, facilities, agreements — inherit that uncertainty in full.

4.6.2 The Mandated Feasibility Study

The FY2026 act did more than withhold endorsement; it directed the Secretaries of Agriculture and the Interior to contract with an independent, non-partisan research organization to study the feasibility of consolidating federal wildland firefighting (Wildfire Today 2026). As of the April–May 2026 hearings, the agencies were in the early stages of contracting that work; Forest Service Chief Tom Schultz testified that once a vendor is selected the study will take up to six months to complete (Federal News Network 2026b). The arithmetic matters for every planning assumption built on the study: vendor selection had not concluded by May 2026, placing study completion no earlier than late 2026 and plausibly into 2027 — after the first full fire season of the as-built configuration, and after the FY2027 budget cycle in which the administration proposes to complete the consolidation the study is meant to evaluate.

4.6.3 The February 2026 Senate Letter

On February 5, 2026, members of the Senate Energy and Natural Resources Committee wrote to Secretary Burgum requesting that the Department delay further implementation of the unification until Congress received answers to a set of enumerated questions (U.S.

Senate ENR 2026). The letter's premise is the concern this volume's opening posed in operational terms: that the Department was "advancing a rapid and consequential restructuring of wildfire management without adequate analysis, transparency, or planning" to prevent disruption during an expected significant fire season or to safeguard long-term preparedness, and that the consolidation had been announced without an implementation plan demonstrating how operational continuity would be ensured (U.S. Senate ENR 2026). Its enumerated questions form a ready-made register for Part VI of this volume: a detailed accounting of positions, functions, and duty stations to be consolidated, by bureau; anticipated relocations, reclassifications, and reporting-structure changes; branding plans across uniforms, equipment, vehicles, and insignia; the pay structure to apply to USWFS personnel; and — the letter's structural point — acknowledgment that the full consolidation requires congressional authorization regardless of what the feasibility study finds (U.S. Senate ENR 2026).

4.6.4 The Spring 2026 Hearings and the Sequencing Inversion

The April 2026 appropriations hearings put the institutional conflict on the record in plain language. Subcommittee Chairman Mike Simpson — an Idaho Republican, which is to say a member whose objection cannot be read as reflexive opposition — reminded Forest Service leadership that Congress had declined the consolidation because too many questions were unanswered, and characterized combining the agencies before the mandated study concluded in six words: "Otherwise, why do the damn study?" (Mountain Journal 2026b). Schultz testified that he was nonetheless working with Interior to consolidate all federal wildfire resources into the USWFS, framing the move as freeing the Forest Service to focus on its core land management mission, and reported agency hiring at 9,390 firefighters against an 11,300 goal (Mountain Journal 2026b).

The sequencing inversion is the documented fact to carry forward. The order of operations Congress constructed — study, then legislative consideration, then any transfer — runs opposite to the order of operations in the executive record, where the FY2027 budget request proposes legislation establishing the consolidated USWFS, the Forest Service's justification declares its intent to transfer its wildland fire appropriations to Interior, and the administration's planning documents anticipate transferring operational capacity "to ensure effective USWFS mission implementation" — all drafted and submitted before the feasibility study's vendor was under contract (Taxpayers for Common Sense 2026; Mountain Journal 2026a). Whatever the merits of consolidation, the as-built decision process has the conclusion preceding the analysis, and the analysis — when it arrives — will be evaluating an organization that by then will have a full season of operating history, sunk costs, and a constituency. Decision-quality literature has a name for evaluations conducted under those conditions, and Part V applies it.

4.7 The Forest Service Question

4.7.1 What SM 1078-017 Did and Did Not Do

The Forest Service's position in the as-built configuration is easily misstated and frequently has been. The agency's fire program has not transferred to Interior; no authority passed between departments (Western News 2025). What changed inside the agency is nonetheless substantial: fire leadership consolidated under a single deputy chief with implementation from April 1, 2026; standardization of fire position descriptions and classifications agency-wide; incident leadership responsibility relocated from the geographically distributed line — district rangers and forest supervisors who exercise it in direct relationship with county and local authorities — to the consolidated fire function (NACo 2025; Smokey Wire 2025; Western News 2025). The agency thus enters the 2026 season internally restructured along the same line-to-fire-staff axis as Interior, while remaining organizationally outside the USWFS. Senior advisor roles coordinating directly with the USWFS chief bridge the two structures in the interim (NMAC 2026).

The scale asymmetry frames everything about the prospective merger: the Forest Service has historically fielded more than two-thirds of the nation's federal wildland firefighting personnel and a similar share of its contracting and procurement (Western News 2025). The USWFS as built is, by resource count, the smaller partner — yet it is the receiving organization in every consolidation proposal in the record. The FY2027 documents anticipate a unified service managing protection and risk-reduction responsibilities across more than 693 million acres of DOI- and Forest Service-administered land (DOI 2025c).

4.7.2 The FY2027 Budget Architecture

The FY2027 request renews the full consolidation: it proposes legislation establishing the USWFS within Interior, consolidating wildland fire programs across both departments into a single agency (Taxpayers for Common Sense 2026; DOI 2025c). The Forest Service's 201-page congressional justification declares the intent to transfer its wildland fire appropriations to Interior, characterizing the reform as improving federal response effectiveness and streamlining coordination with non-federal partners (Mountain Journal 2026a). The same budget proposes eliminating roughly 800 of the agency's 1,110 research scientist positions and zeroing research and development funding, with leadership testifying that states and the private sector would absorb the function (Federal News Network 2026b; Merkley et al. 2026). The research dismantlement is recorded here, rather than in a footnote, because the fire research enterprise — fire behavior, fuels, smoke, ecology — lives substantially inside Forest Service R&D, and a consolidation premised on modernizing fire management while the budget defunds the science base for fire management is a tension the feasibility study will inherit. Over thirty senators raised

the reorganization's effect on the research mission in April correspondence (Merkley et al. 2026).

4.7.3 Legal Constraints on Full Consolidation

The legal boundary is consistent across the record and worth stating without ornament. Interior could unify its own bureaus' fire programs by secretarial order under Reorganization Plan No. 3 of 1950 because the functions already belonged to the Secretary. It could not, and did not, create a new statutory bureau — the USWFS sits in the Office of the Secretary — and neither secretary can move the Forest Service's fire program, personnel, or appropriations across the departmental boundary without an act of Congress (Wildfire Today 2026; U.S. Senate ENR 2026). The FY2027 request acknowledges as much by proposing legislation. The as-built configuration is therefore structurally capped: everything achievable by executive action has been executed; everything remaining requires the legislature whose appropriators have, to date, conditioned consideration on a study not yet begun. The system enters the 2026 fire season suspended between those two facts.

4.8 The As-Built Configuration: Status Summary, June 2026

Two registers close this Part: the instrument timeline, and the disposition of the principal authorities and functions as the record stands at the opening of the 2026 fire season. Both are built strictly from the sources cited above; entries marked *unresolved* reflect silence or conflict in the published record, not gaps in this volume's research.

Table 4–1. Instrument and Event Timeline, June 2025 – June 2026

Date	Instrument / Event	Effect
Jun 12, 2025	Executive Order 14308 (90 FR 26175)	Directs DOI–USDA wildland fire consolidation "to the maximum degree practicable and consistent with applicable law"; technology, regulatory, and bulk-power tracks.
Sep 10, 2025	DOI Secretary's Order 3443	Directs establishment of USWFS reporting to the Secretary; plan due Oct 31, 2025; defines "unification"; § 4(e) shifts authority to Fire Chief while retaining line officer responsibility; ~20 joint DOI–USFS actions on 30–270-day clocks.
Sep 10, 2025	USDA Secretarial Memorandum 1078-017	Consolidates USFS fire leadership under a single deputy chief; relocates incident leadership from district rangers / forest supervisors; standardizes positions; implementation from Apr 1, 2026. No interdepartmental transfer.

Date	Instrument / Event	Effect
Dec 2025	Fennessy appointment announced	Inaugural USWFS chief named; retires from Orange County Fire Authority Jan 2, 2026.
Jan 9, 2026	Geographic Area boundary recommendations delivered	120-day review executed in eight weeks, with DOI, USDA, and state participation.
Jan 12, 2026	DOI Secretary's Order 3448	Establishes USWFS in the Office of the Secretary; absorbs BIA, BLM, NPS, FWS, OWF, OAS fire programs; delegates the Director "all authority necessary" for the fire mission; acknowledges transition-period overlapping authorities.
Jan 2026 (same week)	FY2026 consolidated appropriations	No USWFS funding ($6.5B requested); dual USFS/DOI funding preserved; independent feasibility study mandated.
Jan 21–22, 2026	NMAC/CGAC coordination record	Documents executive structure, Geographic Area model, single USWFS chain of command, Regional Fire Chiefs as USWFS line officers, pending NMAC composition changes.
Feb 5, 2026	Senate ENR members' letter to Secretary Burgum	Requests implementation delay pending answers on positions, duty stations, pay, reporting structures; notes congressional authorization required regardless of study findings.
Spring 2026	USWFS Transition Plan (17 pp.) released	Operating principles; full fire authority placed in USWFS; protection responsibility for all four bureaus' lands; "locally led" commitment.
Apr 2026	USWFS Authorities/Actions framework issued	Standardizes assignment, exercise, and reassignment of authorities within USWFS.
Apr–May 2026	House appropriations hearings; FY2027 request	FY2027 proposes USWFS legislation and USFS fire appropriations transfer; feasibility study still in vendor contracting; study duration up to six months after award.
May–Jun 2026	2026 Red Book in effect	Department-wide presumption of full suppression for every unplanned ignition; assignment doctrine codified in interagency standards.

Table 4–2. Authority and Function Disposition, June 2026

Function / Authority	Pre-Reorganization Holder	As-Built Holder (Jun 2026)	Status
Program, appropriations, workforce authority (DOI fire)	Four bureau directorates; OWF policy/budget coordination	USWFS Director, by mission-scoped delegation	Executed (SO 3443/3448)

Function / Authority	Pre-Reorganization Holder	As-Built Holder (Jun 2026)	Status
Strategic fire decisions / incident objectives (DOI lands)	Agency administrators (unit line officers), per land management plans	USWFS structure under department-wide suppression presumption	Executed; doctrine unpublished
Delegation of authority to incident commanders	Written delegation from unit agency administrator	Assignment within USWFS; bridged by transition guidance	Unresolved in published record
Land management accountability	Bureau line officers	Bureau line officers (expressly retained, SO 3443 § 4(e))	Retained — separated from authority
USFS incident leadership	District rangers / forest supervisors	Consolidated fire function under a single deputy chief	Implementation from Apr 1, 2026
USFS fire program, personnel, appropriations	USDA Forest Service	USDA Forest Service	Transfer requires act of Congress; proposed in FY2027
Protection responsibility, BIA/BLM/NPS/FWS lands	Respective bureaus	USWFS	Executed (Transition Plan)
National resource allocation (NMAC) and GACC structure	Interagency, bureau-aligned membership	Under restructuring; boundary recommendations delivered Jan 2026	In revision
Qualification / certification framework (NWCG)	Interagency consensus body	Formally unchanged; governance-body restructuring ordered	In revision
Cooperative agreement and reimbursement machinery (states, tribes, locals)	Master agreement templates; bureau counterparties	Templates under 120-day revision; USWFS as new counterparty	In revision
USWFS appropriation	n/a	None enacted; operating through legacy account structures	Denied FY2026; re-proposed FY2027
Post-incident review / accountability architecture	Administrator-convened reviews under bureau protocols	Not specified for unified structure	Unresolved in published record

4.8.1 The Configuration in One Paragraph

As the 2026 fire season opens, the United States operates a federal wildland fire system in which: a five-month-old organization, unauthorized and unfunded by Congress, holds plenary fire authority and protection responsibility for more than 500 million acres

governed by four divergent statutory missions; that authority is exercised through an assignment doctrine that keeps it sealed within the fire organization, by leaders drawn from a community that has never held it, under a department-wide presumption of full suppression; the land managers who remain legally and publicly accountable for those acres hold responsibility without authority; the nation's largest fire workforce remains in a separate department that has internally executed the same line-to-staff inversion while its transfer awaits a study whose vendor is not yet under contract — and every agreement, qualification crosswalk, coordination boundary, and reimbursement pipeline connecting this structure to the states, tribes, counties, and fire districts that supply the majority of the nation's response capacity is simultaneously under revision. That is the as-built system. Whether it functions — and for whom, and at what cost in the currencies each level of government actually counts — is the question the remainder of this volume is constructed to examine.

4.8.2 Documentation Notes

Sourcing hierarchy in this Part runs: (1) the instruments themselves — EO 14308, SO 3443 (full signed text reviewed), the published provisions of SO 3448 and SM 1078-017/1078-022, the FY2026 appropriations direction, the 2026 Interagency Standards for Fire and Fire Aviation Operations, and the USWFS Transition Plan as published; (2) official contemporaneous records — DOI and USDA releases, the February 2026 Senate letter, NMAC/CGAC meeting records, hearing testimony; (3) trade and regional press, used for facts of announcement, appointment, and testimony rather than for characterization. Three verification items remain open for the author before Volume One locks: confirmation of the full signed text of SO 3448 against the Red Book's quoted provisions (the DOI document library copy was not text-retrievable at drafting); the formal citation and full text of SM 1078-017 (currently sourced through SM 1078-022 and contemporaneous reporting); and the enacted FY2026 appropriations report language mandating the feasibility study, which should be cited to the explanatory statement directly. News-source citations use corporate authorship pending bylined verification. All quotations from federal instruments are U.S. government works in the public domain.

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Volume One · Part V — The Friction Map

Where the as-built system predictably loses energy: the synthesis of Parts I through IV

5.1 Method: Reading Friction at the System Level

This Part performs the synthesis the preceding four were built to support. Its unit of analysis is *friction*: predictable energy loss at the interfaces of a system under load — time consumed at decision points, capacity that hesitates, work redone, trust spent. The method is deliberately constrained. Every friction claimed here must rest on documented structure (Parts II–IV) interacting with documented load (Part I) and with the documented behavior of organizations and people acting rationally within their goal structures (the local-rationality standard of Part II). No friction is attributed to bad faith, incompetence, or hidden motive, because none needs to be: the frictions mapped below are what the as-built structure produces when staffed entirely by competent people doing their jobs as their positions define them. That is what makes them system-level findings rather than complaints, and what makes them durable inputs to Volume Two. Equally, this Part is not a prediction of failure and not a brief against consolidation — Section 5.10 states explicitly what the map does not say. It is the appreciation's final act: the load and the structure, brought into contact on paper before the season brings them into contact on the ground.

5.2 Mission Divergence Under a Unified Strategic Presumption

Part II established that the four consolidated bureaus answer to four statutory definitions of a good outcome; Part IV established that the unified service entered its first season under a department-wide presumption of full suppression. The friction is structural, and a single constructed case displays it. A lightning fire starts on BLM sagebrush in late July, burning toward a national park boundary on one flank and private ranchland on another, with a refuge's fall burn units beyond. Under the legacy doctrine, three administrators with three statutory missions negotiated objectives — slowly, sometimes badly, but the negotiation *was* the mechanism by which three laws were simultaneously honored on one fire. Under the as-built structure, a single fire organization holds the decision under a suppression presumption, and the three missions enter — if they enter — as coordination input from line officers who hold responsibility without authority. The presumption resolves the BLM flank correctly by that bureau's own logic. It resolves the park flank by a

logic the park's statute does not share, and it spends the refuge's burn-window latitude as a precaution. Multiply by a season.

The deeper version of this friction lives inside SO 3443's own definitional move: the assertion that *strategy* can be standardized centrally while *tactics* remain situational (DOI 2025a). The legacy doctrine's entire premise — and the premise of the 1995 policy and everything after it — is that strategy is precisely the layer where the land's purpose enters the decision; strategy is the land management act. Standardizing strategy across divergent missions does not remove the divergence; it relocates the divergence from the decision — where it was visible, argued, and documented in a signed decision of record — to the aftermath, where it surfaces as inter-organizational grievance, post-fire dispute over damage and rehabilitation, and statutory exposure. Friction deferred is not friction removed; it is friction moved to a venue with lawyers.

5.3 Planning-Horizon Mismatch

Lay the horizons of Table 2–1 against the clocks of Part IV and the mismatch is arithmetic. The reorganization runs on 30-to-270-day implementation deadlines, annual appropriations cycles it does not control, and the political horizon of an administration; the missions it now serves run on decadal plans, century rotations, species-recovery timelines, and statutory perpetuity; and the fuels problem of Part I is tractable only on the longest of those horizons. Organizations optimize to the horizon their incentives measure, and every incentive visible in the as-built record — transition milestones, first-season performance, the political imperative that the new organization not be embarrassed before the feasibility study reports — measures in months. The predictable expression is already documented: a first-season suppression presumption is, among other things, the rational strategy of an institution that cannot yet afford a managed fire going wrong, purchased with the long-horizon currency — burned-window fuels work, managed-fire acres, landscape resilience — that no transition metric counts. The mismatch compounds intergovernmentally: states on annual budgets, counties on election cycles, and tribes on generational obligations are now coordinating with a federal core whose own effective horizon, until Congress acts, is the next appropriations rider.

One program makes the horizon arithmetic concrete: prescribed fire, the activity every strategic document since 1995 has called essential. A landscape-scale burn program is a decade-long compound investment — environmental compliance and planning in year one; mechanical preparation in years two and three; first entry when weather, smoke clearance, staffing, and fuel moisture align in perhaps a six-day annual window; maintenance entries every several years thereafter — and a single missed year does not pause the investment but degrades it, as fuels regrow toward the condition that required treatment. Now run that program through the as-built environment: burn-qualified

personnel reassigned into a reorganizing structure; agreements that move partner burn resources under revision; a first-season doctrine that presumes suppression and makes every escaped-fire headline an institutional threat; and an organization whose budget, structure, and possibly existence are conditioned on a study reporting after the burn windows close. No official in that chain has to oppose prescribed fire for the program to lose its year; the horizon mismatch loses it for them. The fuels debt of Part I compounds annually whether or not the institution's clock is running, and the interest is paid in exactly the conflagrations that drive the next reorganization.

5.4 The Authority–Accountability Seam in Operation

Part IV documented the seam as structure; this section reads it as behavior. Where authority to decide and accountability for consequences live in different organizations, three adaptations follow from local rationality alone, and the system should expect all three. *Line officers disengage and document.* An official who answers for outcomes she cannot direct will, rationally, protect her unit and herself in the currency she still controls: written objection, formal correspondence, conditions on coordination — defensive paper that consumes exactly the resource the system has least of, time at decision points, and converts colleagues into counterparties. *Fire officers default to the defensible.* An official holding authority without land accountability, operating without published doctrine for weighing missions he does not own, will select the one strategy no review can fault him for selecting — and the as-built guidance has already codified that default as the presumption. *Escalation becomes the mechanism.* Decisions the legacy doctrine settled on the unit — because one official held all the pieces — now route upward through two chains to the level where they rejoin, which in the as-built structure is the Secretary's office. Each adaptation is individually rational; together they produce a system that is slower at the seams precisely under the wind-driven, hours-not-days load Part I established — the inverse of the speed the reorganization exists to deliver.

Two specific voids sharpen the seam, both flagged in Part IV and neither resolved since. The delegation-of-authority question — who signs the document that bounds an incident management team's discretion on a multi-bureau fire, and under which authority, given the assignment doctrine — is bridged for 2026 by transition guidance whose own text is a savings clause. And the review-and-investigation void is the seam's most consequential expression: the first severely adverse outcome of the unified era — a fatality fire, a community lost under a contested strategy decision — will be reviewed by a process no instrument has defined, examining a decision chain that crosses organizations with separated stakes. The system's learning machinery, not only its accountability machinery, runs through that undefined process.

A single afternoon makes the seam concrete. Day three of a managed-pace fire on Interior land: the incident meteorologist forecasts a wind shift that converts tomorrow's quiet flank into a run toward a drainage holding both a trust-timber stand and the anchor point for the only indirect containment option. The incident commander needs a strategy decision — commit to expensive direct line tonight, or accept the drainage and fall back — inside roughly six hours to order resources against national competition. Under the legacy doctrine the call belonged to one official who held the land's objectives, the delegation, and the consequence, reachable by phone. Under the as-built structure the authority sits in the fire chain's regional tier; the trust accountability sits with a bureau official outside that chain; the published presumption answers "suppress" without pricing the trust asset or the rehabilitation cost of line in the drainage; and the officials involved — each behaving correctly by position — spend the six hours establishing who decides rather than deciding. No one in the vignette errs. The structure bills the fire for its seam, in the only currency the forecast accepts.

5.5 Culture, Qualification, and the Inverted Line

Part IV established that the officials now holding strategic fire authority are drawn from a community that, by the legacy doctrine's design, has never held it — and that no qualification standard, training pipeline, or published doctrine exists for the inverted role. The friction here is not aptitude; the fire community's operational competence is the system's most reliable asset. The friction is formation. What a professional community measures as success during its members' formative decades becomes that community's strategic instinct when it acquires strategic power, and the fire community's formative metric — honorably, necessarily — has been the fire caught small, the assignment completed, the season survived. Land management formation — the habit of weighing this decade's emergency against next century's forest, this fire's cost against this watershed's function — was the line officer's contribution to the pairing, and the pairing is what the inversion dissolved. The development question runs both directions and neither has an answer in the record: nothing now produces fire executives formed in land management judgment, and — with fire personnel "stovepiped" out of the bureaus and the militia's incentive structure collapsing (a bureau employee whose agency no longer owns fire has thin career reason to maintain a red card) — nothing replaces the qualification capacity and the land-fluent fire literacy the militia carried. The 2030 command bench and the 2040 executive bench are being set by these defaults now, which makes this a present-tense friction wearing a future-tense disguise.

5.6 Funding Architecture and the Incentives It Builds

Part I documented that suppression is the system's only effectively guaranteed money; Part IV documented an organization operating without any appropriation of its own through legacy account structures, under a congressional posture ranging from skeptical to hostile. The compound friction: the USWFS's every institutional incentive — fiscal survival, political defensibility, demonstrated relevance ahead of the feasibility study — points toward the activity that is always funded and never second-guessed, and away from the activities (fuels, managed fire, recovery) whose budgets are capped, whose failures are career-ending, and whose benefits accrue on horizons the institution may not survive to claim. The state and local tiers run their own version: FMAG's 75-percent suppression reimbursement, against thinly funded mitigation, teaches the same lesson at the statehouse, and the county tax-base loop of Part II teaches it at the ground floor. The system's money, at every level, votes for suppression — while the fuels condition of Part I compounds at interest. No participant in this loop is behaving irrationally; the loop itself is the finding, and it predates the reorganization, which has so far reinforced rather than interrupted it. Add the counterparty dimension: bureau budget structures entangled with a new organization Congress declined to fund produce traceability and audit exposure that every cooperating government's finance office can see, with consequences Section 5.8 follows.

5.7 Scaling, Training, and the Concurrency Problem

Part IV's timeline, read as a project plan, documents the following executed concurrently in the months before and during a fire season, on a workforce Part I established as the system's binding constraint: a workforce-wide organizational transfer; a new executive structure partially staffed by details; a new field geography; revision of the national coordination boundaries and the national allocation body; consolidation of predictive services; revision of every major cooperative agreement template; a new authorities framework issued mid-stream to remedy field confusion; and a first-season operational doctrine. Organizations have finite change-absorption capacity, and the literature on concurrent transformation is unambiguous about what saturation produces: error rates rise, informal workarounds proliferate, institutional knowledge held in severed relationships is lost, and the people most able to leave — the most qualified — are the most likely to. The fire system's specific vulnerability is that its qualification pipeline (Part III) cannot replace what attrition removes on anything shorter than a half-decade horizon. The original sequencing question — whether robust training and adequate time to scale should precede authority transfer of this magnitude — was raised in the congressional record and answered by the calendar: implementation commenced January 12; the season commenced on schedule.

5.8 Intergovernmental Counterparty Risk and Local Rationality

The system's majority capacity is non-federal (Part II); its engagement runs through the agreement lattice (Part III); and the lattice entered simultaneous revision with a reorganizing, unfunded counterparty on the federal side (Part IV). The frictions follow from each actor's documented rationality, and they deserve enumeration because Volume Two must design against them rather than deplore them. A state forester weighing the season's operating plan now faces unsettled questions her attorneys and auditors are paid to ask — who signs, whose authority binds, whether reimbursement pipelines mid-"modernization" will pay on time — and the rational posture is conditional engagement: shorter commitments, more paper, resources held closer to home. A volunteer department that cannot float ninety days of unreimbursed payroll declines the federal mobilization it would have accepted in 2024 — rationally. A tribal nation reading the dissolution of the BIA fire program into an organization whose trust-responsibility doctrine is unwritten accelerates its own 638 capacity — rationally, and perhaps to the system's long-term benefit, but in the near term as a hedging behavior that signals eroded confidence. A county, watching insurance withdraw and federal posture wobble, doubles down on the development that funds its fire district — rationally. None of these actors is opposing the national interest; each is protecting what it answers for. The aggregate, though, is a system whose effective capacity contracts at the interfaces exactly when Part I's load demands it expand — and a federal design that experiences its partners' rationality as resistance has misdiagnosed its environment.

The annual operating plan negotiation — the lattice's most routine document — shows the mechanism in miniature. Each spring, a state forestry agency and its federal neighbors update the AOP under the master agreement: protection boundaries, billing rates, dispatch procedures, initial-attack reciprocity inside the mutual-aid zone. In an ordinary year the negotiation is an afternoon, because last year's text mostly holds and both signature blocks are stable. In 2026 the state's negotiator faces a federal counterpart whose organization did not exist at the last signing, a master-agreement template under national revision, billing codes routed through account structures Congress declined to fund, and — her counsel notes — an open question whether the signatory's assigned authority would survive the feasibility study's outcome. She signs, because the season is coming and the relationship is decades old; she also adds termination language, shortens the reciprocity window, and routes more decisions to written concurrence. Nothing failed; everyone behaved professionally; and the interface got measurably slower and more conditional — one document among hundreds, every one of them renegotiated this year against the same uncertainty. Friction at this scale is not an event. It is a climate.

5.9 Second- and Third-Order Effects

Five slower-moving consequences complete the map; none is visible in a first season and each compounds. *Standards drift*: the NWCG consensus machinery — the load-bearing infrastructure of interoperability — sits among the governance bodies ordered restructured for "clear authority"; converting a consensus body into a directed one trades legitimacy for speed, and the legitimacy is what made the standards portable across sovereigns. *Evidence-base erosion*: the FY2027 proposal to eliminate the Forest Service research enterprise defunds the fire-science base — behavior, fuels, smoke, ecology — on which both operations and the feasibility study's own analysis depend (Part IV). *Framework ambiguity*: the ESF-4 question of Part III leaves the federal firefighting function in every non-fire disaster without a settled institutional home. *Market signaling*: insurers and reinsurers price institutional uncertainty; visible federal instability in fire governance is now an input to the availability and cost of coverage in the interface, which feeds the state-backstop and county-development loops already described. *Succession*: career paths that split fire from land at entry forecast, in twenty years, an executive generation on each side formed without the other's judgment — the inverted line's permanent form. Each effect is individually arguable; their common direction — toward a system that is more centralized, less consensual, less scientifically resourced, and thinner at its intergovernmental edges — is the trend the appreciation is obligated to record.

5.10 What the Friction Map Does Not Say

Discipline requires closing the map with its own limits, stated as plainly as its findings. The map does not say the legacy system was adequate: Parts I through III documented its fuels legacy, its decision seams, its workforce crisis, and administrators of uneven fire fluency — frictions the reorganization's authors did not invent. It does not say consolidation is wrong: the aviation, procurement, pay, predictive-services, and reimbursement problems SO 3443 attacks are real, long-documented, and in several cases are being fixed faster under secretarial deadline than two decades of interagency process managed — the eight-week boundary review is evidence of executive capacity, not only of haste. It does not predict catastrophe: the system's people have absorbed bad designs before and made them work, and that resilience is itself a documented system property — though one the system has a habit of spending rather than husbanding. What the map says is narrower and harder: the as-built structure relocates rather than removes the system's central tensions — between missions, between horizons, between authority and accountability, between federal design and non-federal rationality — and it does so at maximum concurrency, under minimum legislative sanction, at the moment of maximum environmental load. Those relocated tensions are the raw material of the problem Volume Two must define. Part VI organizes them for the handoff.

References (Part V)

Part V synthesizes sources cited in Parts I through IV and introduces no new sources; citations herein refer to the reference lists of the preceding Parts. (DOI 2025a refers to Part IV's list.)

Volume One · Part VI — Conditions for Problem Definition

The register that any honest problem statement must account for: the handoff from appreciation to definition

6.1 Purpose and Use of the Register

This Part is the volume's deliverable to Volume Two. It converts the appreciation — the operating environment of Part I, the institutional lineage of Part II, the coordination architecture of Part III, the as-built record of Part IV, and the friction map of Part V — into a register of *conditions*: facts and structural realities, each anchored in the preceding Parts, that any problem definition must account for. The register's function is disciplinary. A proposed problem statement for the American wildfire system can be tested against it: a statement that ignores a condition, or that quietly assumes one away, has defined a more convenient problem than the one that exists. The conditions are deliberately not problems, not findings of fault, and not recommendations; several pairs of them are in tension with one another, which is exactly why premature problem definition fails — it resolves the tensions by selection rather than by analysis. The register is organized in six clusters. Each condition carries an identifier for traceability into Volume Two and a pointer to its evidentiary base in this volume.

6.2 The Register

Cluster A — Authority and Doctrine

- A-1. Strategic fire authority on Interior lands now resides in a fire-functional chain of command, administered by assignment within that chain, exercised by a professional population with no doctrine, qualification standard, or development pipeline for the land management judgment the role absorbed. (Parts III–V)
- A-2. Land management accountability remains by law with bureau line officers and, on the Agriculture side, with an agency whose internal fire restructuring parallels Interior's. Authority and accountability are structurally separated and no instrument provides a precedence rule, a decision-rights specification, or a joint mechanism at the unit level. (Part IV § 4.4)

- A-3. The delegation-of-authority and decision-of-record functions for incidents — who signs, under what authority, against which objectives — are bridged by transitional guidance, not settled doctrine. (Parts III–IV)
- A-4. No defined review, investigation, or organizational-learning process exists for severe outcomes under the unified structure. The system's accountability and learning machinery presupposed an official the structure no longer centers. (Parts IV–V)
- A-5. First-season strategic doctrine presumes full suppression universally, against a fifty-year policy arc — and a fuels condition — running the other way. Whether this is transitional conservatism or institutional character is undetermined and consequential. (Parts I, II § 2.10, IV § 4.3.5)

Cluster M — Mission and Land

- M-1. Four unamended statutory missions, with four definitions of a good fire outcome, govern the lands one organization now protects; the divergence cannot be standardized out of the system, only relocated within it. (Parts II, V § 5.2)
- M-2. The trust responsibility makes every fire decision on Indian lands a fiduciary, government-to-government act; the unified service's trust doctrine and its interface with tribal 638 operations are unwritten. (Parts II § 2.6, V § 5.8)
- M-3. The fuels problem is two opposite problems — fire-starved forests, fire-saturated invaded rangelands — requiring opposite strategic latitudes, often on adjacent jurisdictions. (Part I § 1.2)
- M-4. The fires driving policy are urban conflagrations decided substantially by construction, land use, water systems, and evacuation — variables held at the local level — while the reorganized capability is the federal landscape-fire apparatus. The fit between demonstrated problem and reorganized system is unestablished. (Parts I §§ 1.3, 1.6)

Cluster I — Intergovernmental Structure

- I-1. Majority national capacity is non-federal and sovereign; it engages by agreement, compact, and consensus standard — by accommodation of local rationality, not by direction. Designs that require partners to act against what they answer for will get hedging, not compliance. (Parts II–III, V § 5.8)
- I-2. Every major federal–nonfederal interface — agreement templates, reimbursement, qualifications crosswalks, coordination geography, national allocation — is under simultaneous revision while the federal counterparty

reorganizes. Counterparty risk is the partners' rational current posture. (Parts IV § 4.5, V § 5.8)

- I-3. The land-use/tax-base loop — development that raises exposure funds local protection and expects higher-level rescue — sets the exposure curve at the level of government least fiscally able and least incentivized to bend it. (Parts I § 1.3, II § 2.8)
- I-4. Evacuation, structural protection, and building authority — the levers that decided the era's defining fires — are untouched by, and largely invisible in, the reorganization's instruments. (Parts I–II, IV)
- I-5. The system's only standing intergovernmental strategy (the Cohesive Strategy) and its only recent whole-of-system analysis (the 2023 Commission report) were co-produced across levels of government; the 2025–2026 redesign was not, and the legitimacy differential is a working variable in partner behavior. (Part II § 2.10, Part IV)

Cluster W — Workforce and Qualification

- W-1. The qualification pipeline's production time is measured in seasons-to-decades; command and executive benches for 2030–2040 are being determined by present defaults, including the militia's collapsing incentive structure under the fire/land split. (Parts I § 1.5, III § 3.7, V §§ 5.5, 5.7)
- W-2. The workforce absorbing the reorganization is the same workforce in documented retention crisis; change-absorption capacity, not headcount, is the binding constraint, and the as-built plan spent it at maximum concurrency ahead of a season. (Parts I, V § 5.7)
- W-3. No development pathway now produces officials formed in both fire operations and land management judgment — the pairing the legacy doctrine institutionalized and the inversion dissolved. (Parts III § 3.6, V § 5.5)
- W-4. Interoperability rests on consensus-maintained standards (NWCG); restructuring the consensus machinery for directed authority trades the legitimacy that makes the standards portable across sovereigns. (Parts III §§ 3.4, 3.7, V § 5.9)

Cluster F — Fiscal and Legal

- F-1. The funding architecture at every level guarantees suppression and caps everything else; the system's money teaches suppression while the fuels debt compounds. Any problem definition that treats strategy as a doctrine question while leaving the money untouched has defined half a problem. (Parts I § 1.4, V § 5.6)

- F-2. The USWFS operates without authorization or appropriation; its structural ceiling — and the Forest Service transfer — require acts of Congress that appropriators have conditioned on a study not yet under contract. Institutional durability is itself an open variable that every planning horizon in the system now prices. (Part IV §§ 4.6–4.7)
- F-3. The decision sequence in the executive record runs approach-before-analysis — FY2027 commits to the consolidation the mandated study is meant to evaluate — and the study, when delivered, will assess an organization with a season of operating history, sunk costs, and a constituency. The evaluation conditions are already compromised and the problem definition must account for that, whatever it concludes. (Part IV § 4.6.4)
- F-4. Liability and insurance dynamics — utility exposure, carrier withdrawal, state backstops, federally subsidized recovery — are reallocating fire risk across levels of government faster than authority or money is moving, and largely outside the instruments under study. (Part I § 1.4, V § 5.9)

Cluster K — Knowledge and Evidence

- K-1. The federal fire-science base is proposed for defunding in the same cycle that demands the system's most consequential evidence-based judgment; the feasibility study's own evidentiary ground is being thinned as it begins. (Part IV § 4.7.2, V § 5.9)
- K-2. The system's performance metrics — acres, initial-attack success, structures — have decoupled from consequence and systematically undervalue long-horizon work; what the new organization measures in its first years will become what it is. (Parts I § 1.2, V § 5.3)
- K-3. The 2026 season constitutes an uncontrolled natural experiment on the as-built structure; its evidence will arrive contaminated by hindsight, attribution contests, and the review vacuum of A-4, and Volume Two's problem definition should specify in advance what would count as evidence of what. (Parts IV–V)

6.3 The Handoff to Volume Two

Volume Two opens by writing the problem definition this volume has refused to write, and the register above is its acceptance test. Three criteria, stated now so the future work can be held to them. First, *coverage*: the problem statement must account for every condition in the register — account for, not solve; a condition may be accepted as a constraint, contested with evidence, or designated for further appreciation, but it may not be silently dropped, because the dropped condition is where the eventual approach will

fail. Second, *multi-level honesty*: the problem must be defined as it exists — distributed across federal, state, tribal, and local goal structures — rather than as the portion of it any single level can act on; a federal-only problem statement is a category error this volume has spent six Parts foreclosing. Third, *solution hygiene*: the statement must not smuggle its answer — neither “the problem is fragmentation” (which assumes consolidation) nor “the problem is the consolidation” (which assumes reversal); both are approaches wearing a problem’s clothing, and the register contains conditions that each would have to drop to survive. The appreciation is complete. The context is on the record — the load, the lineage, the architecture, the as-built change, the frictions, and the conditions. Volume Two begins with a blank page and this register beside it, which is the only honest way to begin.

VOLUME TWO — DEFINING THE PROBLEM, DEVELOPING THE APPROACH

The problem definition tested against the conditions, three courses of action honestly costed, and a recommendation that states what would prove it wrong

How to Read Volume Two

Volume One executed the first movement of the design discipline — *appreciate the context* — and refused, structurally, to define the problem. This volume executes the second and third movements: it defines the problem, and it develops an approach, in that order and with the seam between them kept visible, because an approach that leaks backward into its problem definition is the failure mode the discipline exists to prevent. The volume's internal architecture is itself an analytical instrument: an executive summary; the problem definition with its supporting analysis; a red team assessment directed at this volume's own reasoning; a dissenting alternative argued at full strength; and only then a recommended course of action. A reader who skips the red team and the dissent has not read the recommendation — they are part of it.

Three commitments from Volume One govern everything here. First, *coverage*: the problem definition is tested, condition by condition, against the Part VI register — the twenty-five conditions any honest definition must account for — and the test is shown, not asserted. Second, *multi-level honesty*: the problem is defined as it exists across federal, state, tribal, and local goal structures, not as the portion any single level can act on. Third, *solution hygiene*: the definition is written before the approach and is auditable against smuggled answers — Section 2.3 red-teams the candidate frames, including the two this volume's likely readers arrive carrying. Citations are Chicago author–date; references to Volume One use Part and section numbers (e.g., Vol. I § 5.4) and register conditions use their identifiers (A-1 through K-3). The reader who wants the volume's argument in one place should read Part I, then Section 2.4, then Part VI — and then the red team and dissent, which is where the argument earns or loses its keep.

Volume Two · Part I — Executive Summary

The problem in one page; the approach in one page

1.1 The Problem

The American wildfire system is losing ground by design — not anyone's design, but the compound of designs: statutes, budgets, incentives, and reorganizations, each rational at its origin, whose interaction now produces risk faster than the system retires it. The problem decomposes into six structural tensions, developed and tested in Part II. *Exposure* (T1): wildfire risk is created predominantly through local land-use and development decisions that are fiscally rewarded at the level that makes them, while the consequences are paid system-wide — the loop runs uncorrected because every actor in it behaves rationally. *Regime* (T2): the work that retires risk — fuels treatment, managed and prescribed fire, community adaptation — is discretionary, capped, and long-horizon, while the work that responds to risk is effectively guaranteed funding at any level the season demands; the system's money teaches the opposite of its strategy, at every level of government. *Governance* (T3): strategic fire decisions require land judgment and fire judgment held together in one accountable place, and the 2025–2026 reorganization separated them — authority into a fire chain of command, accountability remaining with land officials — without doctrine, qualification, or review process to rejoin them. *Capacity* (T4): the binding constraint is qualified people and organizational change-absorption, both being consumed faster than the pipeline replaces them, with the reorganization's concurrency as the largest single draw. *Federation* (T5): national capability is an alliance of sovereigns — federal, state, tribal, local — that engages through accommodation of each member's local rationality, and it is currently being managed as a hierarchy it is not, with every interface under simultaneous revision against an unfunded federal counterparty. *Knowledge* (T6): the system's metrics have decoupled from consequence, its evidence base is being defunded, and it has entered an uncontrolled natural experiment on its own governance with no defined process for learning the result.

1.2 The Approach

No single actor can resolve these tensions, so the approach is addressed to the actors who hold each decision right, in three tracks distinguished by what they require. *Track One — the no-regrets package* (Part III § 3.4): seven actions, executable now under existing secretarial and interagency authority, that every credible future requires regardless of how the structural question resolves — doctrine for the authority–accountability seam, a defined review and learning process, a written trust-responsibility doctrine, stabilization

of the agreement lattice, repair of the militia and qualification incentives, pre-registered evaluation criteria for the 2026–2027 seasons, and protection of the consensus standards machinery. *Track Two — the structural fork* (Part III §§ 3.5–3.6): the genuine choice between completing the consolidation with its seams repaired (COA A) and a federated redesign that consolidates support functions while re-attaching strategic authority to accountable land officials (COA B) — adjudicated through the congressionally mandated feasibility study, whose evidentiary integrity must be repaired for the choice to be honest. *Track Three — the system compact* (Part III § 3.7, COA C): the intergovernmental layer where the exposure and funding tensions actually live, pursued in parallel under any structural outcome, through the existing cohesive-strategy and commission machinery with instruments that bind. The recommended course of action (Part VI) is the phased composite: Track One immediately; Track Two decided at the study, against pre-registered criteria, not before; Track Three launched now because its clock is the longest and its lever — the exposure curve — is the only one that bends the consequence trend. Part VI closes with the falsification criteria: what would tell us this analysis is wrong, specified in advance.

Volume Two · Part II — Defining the Problem

Method, the candidate frames red-teamed, the definition, and the register coverage test

2.1 What a Problem Definition Is For

A problem definition is an instrument with one function: to make the approach answerable to something other than its authors' preferences. It earns that function by being written before the approach, tested against the appreciated context, and held stable while alternatives are developed against it — which is why the discipline sequences the three movements and why Volume One refused to perform this one. The definition's standard is not neutrality; a problem is by definition an adverse condition, and naming it takes a position. The standard is *honesty under audit*: every element of the definition must trace to documented context, the definition must survive the register's coverage test, and — the hardest discipline — it must be writable by a reader who disagrees with this volume's eventual recommendation. Sections 2.2 and 2.3 do the clearing work: how problems get framed in contested institutional terrain, and why the five frames currently in circulation each fail as a complete definition. Section 2.4 states the definition. Section 2.5 runs the test.

2.2 Method: Frames, Symptoms, and Tensions

Three methodological commitments shape the definition. First, *frames are positions*: in a multi-level system, every candidate problem statement is generated from somewhere, and it reliably locates the problem in someone else's jurisdiction and the solution in capabilities its author already holds. This is local rationality operating on problem definition itself — the firefighting institution frames a coordination problem, the land management institution frames an authority problem, the state frames a federal-reliability problem, the local government frames a resource problem, the scientist frames a knowledge problem. None is lying; each is partial; and a definition assembled by adopting the most powerful actor's frame is not a definition but a settlement. Second, *symptoms are not problems*: structure loss, suppression cost growth, escaped fires, and interagency friction are outputs of the system's structure interacting with its load; defining the problem at the symptom level produces approaches that manage outputs while the structure regenerates them. Third, *the problem is plural and tensioned*: Volume One's register contains conditions that pull against one another — speed against deliberation, unified command against statutory mission diversity, national standardization against federated sovereignty — and an honest definition preserves the

tensions rather than resolving them by selection. The definition in Section 2.4 is therefore stated as six structural tensions: persistent misalignments between what the system's outcomes require and what its authorities, incentives, and horizons produce. Tensions, unlike villains, admit of design.

A working standard for the statement itself completes the method. The planning literature's classic warning is that problems of this class are "wicked" — they have no definitive formulation, no stopping rule, and every formulation already implies a family of answers (Rittel and Webber 1973) — and the warning is taken here not as license for relativism but as a specification: since some smuggling is structurally unavoidable, the definition must be built so the smuggling is *auditable*. Four quality tests follow, applied in Section 2.5. The statement must be *traceable* — every clause anchored to documented context, so disagreement can locate itself in evidence rather than in temperament. It must be *actor-addressable* — decomposable into elements that map to real decision rights, or it is commentary. It must be *tension-preserving* — where the appreciated context holds genuine trade-offs, the statement must carry them forward intact rather than resolving them by adjective. And it must be *survivable by opponents* — an analyst who rejects this volume's recommendation must be able to accept its problem statement, because a definition only the recommendation's friends can sign is a conclusion in costume.

2.3 The Candidate Frames, Red-Teamed

Five problem frames currently organize the national debate. Each is tested here against the three acceptance criteria — coverage of the register, multi-level honesty, and solution hygiene — and each fails as a complete definition while contributing something a complete definition must keep. The exercise is not academic: the frames are live, each is institutionally sponsored, and the eventual approach will be contested by actors carrying them.

2.3.1 "The Problem Is Fragmentation"

The frame underwriting EO 14308 and SO 3443: federal fire capability is divided among five agencies with duplicative overhead, inconsistent practice, and slow coordination; unify it and response improves. Its contribution is real — Volume One documented genuine fragmentation costs in aviation, procurement, predictive services, and pay equity, and the consolidation's defenders are right that two decades of consensus process failed to fix them (Vol. I § 5.10). As a complete definition it fails all three tests. Coverage: it drops the intergovernmental cluster entirely — the majority of national capability, the exposure loop, the agreement lattice (I-1 through I-5) — along with the mission conditions (M-1, M-2) and the funding architecture (F-1); a definition of the American wildfire problem that contains no states, tribes, counties, or money is a definition of a different

problem. Multi-level honesty: it defines the problem as the portion one level can reorganize. Solution hygiene: it is the textbook violation — "fragmentation" is not a problem description but a solution (consolidation) wearing a problem's grammar, which is precisely why the approach arrived before the analysis (F-3; Vol. I § 4.6.4).

2.3.2 "The Problem Is the Consolidation"

The mirror frame, ascendant among the reorganization's critics and — the red team in Part IV returns to this — the frame this volume's own analysis is most at risk of smuggling: the reorganization itself is the problem; reverse it and the system heals. Its contribution is the seam: Volume One's documentation of the authority–accountability separation, the doctrine vacuum, and the concurrency cost is real and load-bearing (A-1 through A-5, W-2). As a complete definition it fails symmetrically. Coverage: it drops every condition that predates September 2025 — the exposure loop, the funding architecture, the fuels debt, the workforce crisis, the militia's two-decade decline — which between them account for most of the register; the legacy system was not adequate, and Volume One said so in terms (Vol. I § 5.10). Solution hygiene: "the consolidation" embeds reversal exactly as "fragmentation" embeds consolidation. And it carries a tactical dishonesty its sponsors should confront: restoration returns the system to the condition that produced the reorganization, with the added costs of a second transition spent from the same change-absorption account (W-2) — a definition that cannot survive its own success.

2.3.3 "The Problem Is the Fire Regime"

The climate-and-fuels frame: a century of suppression plus anthropogenic warming changed the physical system; institutions are rearranging deck chairs against thermodynamics. Its contribution is the load: Volume One Part I is, in effect, this frame's evidence file, and any definition that treats the regime as background noise fails coverage immediately (M-3, K-2). As a complete definition it fails by *defining away agency*: the regime explains why the problem is hard, not why the system handles it the way it does — the same regime is met by the Alaska zoned-protection doctrine, the Florida burning culture, and the Southern California conflagration economy with radically different results, which means institutional structure is doing real work the frame cannot see. It also fails multi-level honesty in a subtle direction: by locating the problem in the atmosphere, it relieves every level of government simultaneously, which is why it is the frame all of them can comfortably co-sign.

2.3.4 "The Problem Is Exposure"

The WUI frame, strongest in the research community: fires are inevitable; disasters are built — the problem is the construction, density, materials, and siting decisions placing

structures and people in fire's way, governed locally and subsidized federally. Its contribution may be the single most important fact in the register: the variables that decided the defining fires of the era are held at the local level, untouched by the reorganization (M-4, I-3, I-4), and the consequence trend cannot bend without bending the exposure curve. As a complete definition it fails coverage in the other direction — it has little to say about the fuels debt on the public estate, the governance seam, the workforce, or the federation's machinery — and it fails a practical honesty test: its implied solution sits behind the hardest collective-action barrier in American governance, local land-use authority, and a definition whose entire weight rests on the least movable lever is an alibi for the levers that can move.

2.3.5 "The Problem Is Capacity"

The quartermaster's frame, native to legislatures and operational leadership alike: the system lacks people, aircraft, money, and treatments at the scale the load demands — fund it and it performs. Its contribution is the constraint: the workforce condition is documented and binding (W-1, W-2), and several register conditions are, at bottom, resourcing facts. As a complete definition it fails because the system demonstrably misallocates what it already has: money that teaches suppression (F-1), metrics that count the wrong outputs (K-2), incentive structures that spend the militia and the burn windows (W-3, T2's mechanics), and a reorganization that consumed the scarcest resource — change absorption — on an unforced timeline. Capacity added to a misaligned structure is absorbed by the misalignment; the 2021–2022 funding wave, the largest in history, arrived and the structural trends continued (Vol. I § 2.10), which is the frame's own natural experiment returning a negative result.

> What the frames have in common. Each frame is true where its sponsor stands, each locates the solution in capabilities its sponsor holds, and each fails the register by dropping the conditions visible from everywhere else. The definition the register demands is not a sixth competitor at the same altitude; it must operate one level up — at the interactions among the partial truths the five frames each see whole.

2.4 The Problem Definition

The problem, stated. The American wildfire system — the compound of federal, state, tribal, and local institutions, authorities, markets, and publics appreciated in Volume One — generates risk faster than it retires it, and the gap is structural: it is produced by six persistent misalignments between what the system's outcomes require and what its authorities, incentives, and planning horizons actually reward. No actor in the system can correct the misalignments alone; nearly every actor is behaving rationally within them; and the 2025–2026 federal reorganization — whatever its eventual merits — restructured

the internal architecture of one participant while leaving five of the six misalignments untouched and, for a period measured in seasons, deepening the sixth. The six tensions follow, each stated as a misalignment, each anchored to the register.

T1 — Exposure: risk is created where creating it is rewarded

Wildfire consequence is determined substantially by where and how Americans build, and those decisions are governed by the level of government that is fiscally rewarded for approving them, structurally unable to bear their consequences, and rationally confident that higher levels will absorb the loss — while the higher levels' instruments (disaster cost-shares, suppression response, subsidized recovery) confirm the confidence every season. The loop is closed, self-reinforcing, and absent from the instruments of the current reorganization. *(Register: I-3, I-4, M-4, F-4.)*

The tension's mechanism bears stating because it determines what could ever relieve it. Each new interface parcel is individually rational five times over: the developer profits, the buyer gets the view, the county gets the assessed value, the fire district gets the levy, and the state gets the growth — while the risk created is diffused across insurance pools, state backstops, federal suppression response, and disaster recovery, none of which prices the parcel decision back to its makers at the moment of decision. The loop is therefore not a knowledge problem (the hazard maps exist), not a values problem (no actor prefers losing communities), and not solvable by information or exhortation; it is a pricing problem, relievable only by instruments that move consequence back toward decision — cost-share conditions, insurance signals, code-linked recovery terms — which is why T1 reappears in Part III as the design problem behind COA C rather than as a moral observation about counties.

T2 — Regime: the money teaches the opposite of the strategy

Every strategic document since 1995 commits the system to retiring risk through long-horizon work — fuels treatment, managed and prescribed fire, adapted communities — and every funding architecture in the system, federal through local, guarantees the short-horizon work instead: suppression is the only activity funded at whatever level the season demands, while the risk-retiring work is capped, discretionary, sunsetting, and the first casualty of any institutional stress. Organizations learn what their money teaches; the fuels debt compounds at the difference; and the first-season suppression presumption of the new federal service has, for now, codified the lesson as doctrine. *(Register: F-1, A-5, M-3, K-2.)*

The asymmetry's depth is institutional, not merely budgetary. Suppression spending is politically self-executing — no legislator defends a fire left unfought — while risk-retiring work carries every adverse property a budget process can punish: its benefits are counterfactual (the fire that did not destroy), distant (the decade after the treatment),

and diffuse (everyone downwind), while its failures are vivid and attributable — the escaped burn with a name and a news cycle. The 2021–2022 funding wave tested whether money alone corrects the asymmetry and returned the answer: historic fuels investment arrived as *supplemental* and *expiring* — the architecture's message about priority intact — while the permanent obligations it created were suppression-adjacent. The tension therefore specifies its own relief with precision: not more money but *differently reliable* money — risk-retiring work funded with the same insulation from annual discretion that suppression enjoys — and any approach that proposes strategy change without funding-architecture change is asking institutions to unlearn what their incomes teach.

T3 — Governance: land judgment and fire judgment have been separated without doctrine

Strategic fire decisions are land management decisions made under emergency conditions: they require fire judgment and land judgment — the statute, the plan, the trust obligation, the decade after the smoke — held together in one accountable place. The legacy doctrine held them together imperfectly, in the agency administrator; the as-built structure holds them apart — authority assigned within a fire chain of command, accountability remaining by law with land officials — and provides no doctrine, qualification standard, decision instrument, or review process for rejoining them at the moment of decision. The separation does not remove the missions' divergence; it relocates the divergence from a signed decision of record to negotiation under time pressure and dispute after the fact. *(Register: A-1, A-2, A-3, A-4, M-1, M-2, W-3.)*

Two clarifications keep this tension honest. First, T3 is not a claim that the legacy doctrine was good; it is a claim about what any adequate arrangement must accomplish. The agency administrator system held judgment and consequence together *in principle* and delivered it unevenly in practice — the uneven fluency, the risk aversion, the thinning militia are all on Volume One's record — so the tension's test applies symmetrically: a consolidation with a binding concurrence doctrine could satisfy it, and a restoration with the old doctrine's defects unrepaired would fail it. Second, the tension's cost arrives on a specific clock: it is paid in hours, at decision points, on wind-driven fires — the exact conditions Volume One's Part I established as the era's signature — and in years, in the post-fire disputes, statutory exposure, and trust claims that follow strategies selected without the land's law in the room. The first cost is operational and visible; the second is institutional and compounding; and the as-built record prices neither.

T4 — Capacity: the system spends its people faster than it makes them

The binding constraint on national capability is neither acres nor aircraft but qualified people and organizational change-absorption. The qualification pipeline produces command capability on a five-to-fifteen-year clock; attrition removes it on a one-season

clock and selects for the most qualified; the militia that subsidized the overhead bench for two generations is collapsing as its agency-internal supports are removed; and the reorganization drew down the change-absorption account at maximum concurrency, ahead of a season, by choice of schedule. The 2030 command bench and the 2040 executive bench are being set by these defaults now. *(Register: W-1, W-2, W-3, W-4.)*

The tension's arithmetic deserves one paragraph because it disciplines every clock in Part III. Capability exits on the attrition cycle — a resignation effective in weeks — and re-enters on the formation cycle: seasons of task-book progression for overhead, the better part of two decades for the command and executive bench, and no expedient shortens it without spending the safety record that is the system's one non-negotiable achievement. Change-absorption runs the same direction: every reorganization, qualification revision, and agreement renegotiation is paid in the attention of the same finite cadre that runs the fires, and the system has no instrument for measuring the account's balance — it discovers overdraft as error rates, as workarounds, and as the quiet departure of exactly the people whose options are best. T4 is therefore the constraint that converts every other tension's resolution from a question of design into a question of sequencing: the right structure implemented at a tempo the workforce cannot absorb produces the wrong structure's outcomes, with better intentions.

T5 — Federation: an alliance is being managed as a hierarchy

The national wildfire response is an alliance of sovereigns — fifty states, 574 tribal nations, thousands of local governments, five federal missions — whose half-century of demonstrated capability rests on accommodation: common grammar, consensus standards, negotiated allocation, and agreements that respect what each member answers for. The current redesign engages that alliance as though it were an organization — directed restructuring of consensus bodies, simultaneous revision of every interface, authority language in place of negotiated instruments — against an unfunded and possibly impermanent federal counterparty, and the alliance is responding as alliances do: with conditional engagement, hedging, and capacity held closer to home, exactly when the load requires the opposite. The polycentric-governance literature's central finding — that systems of this kind outperform both centralization and fragmentation precisely because they metabolize local rationality rather than overriding it — is the scholarly statement of what the system's own half-century demonstrated in practice (Ostrom 2010). *(Register: I-1, I-2, I-5, F-2.)*

The tension's practical content is trust mechanics. An alliance member's engagement level is set by its confidence in three things: that the counterparty's signature binds, that the rules in force at commitment will be the rules at settlement, and that its own answerable interests will be accommodated rather than overridden when the system is under load. The 2025–2026 record degraded all three at once — authority structures in flux, every

instrument under revision, doctrine asserting direction over negotiation — and the degradation is reversible but not free: coordination capital, once spent, is rebuilt at the speed of demonstrated reliability, which is measured in seasons. The tension also names a category error with a long history: federal fire policy habitually addresses states, tribes, and localities as *implementation tiers* of national strategy, when the constitutional and operational reality runs the other way — the federal system is one member, with the largest logistics and the smallest share of the protection map, of an alliance it does not command. Approaches drafted in the implementation-tier grammar fail on contact regardless of their content, which is why Part III's instruments are written as exchanges among sovereigns rather than directives down a chart.

T6 — Knowledge: the system cannot see whether any of this is working

The system's performance metrics — acres burned, initial-attack success, structures — have decoupled from consequence; its research base is proposed for defunding in the same cycle that demands its most consequential evidence-based judgment; its learning machinery for severe outcomes under the new structure is undefined; and the structural choice now pending before Congress will be informed by a feasibility study whose subject acquired a season of operating history, sunk costs, and a constituency before the study's vendor was under contract. The system has entered an uncontrolled natural experiment on its own governance without specifying, in advance, what would count as evidence of what. *(Register: K-1, K-2, K-3, A-4, F-3.)*

T6's mechanism is circular, which is what makes it a tension rather than a gap. Institutions measure what their incentives reward, fund the science that serves what they measure, and learn from reviews shaped by what they fear — so a suppression-incentivized system counts suppression outputs, thins the research that would price its long-horizon neglect, and reviews its failures in the grammar of response rather than of risk. The circle is then self-sealing: the evidence that would justify changing the metrics is exactly the evidence the current metrics do not collect. Breaking such circles requires an external commitment made before the data arrives — which is what pre-registration is, why NR-6 sits in the no-regrets package rather than the reform agenda, and why the feasibility study's integrity carries weight beyond the structural fork: it is the one instrument in the current landscape with the standing to commit the system to evidence it has not yet seen.

What the definition refuses. It does not name a villain: every tension is sustained by locally rational behavior, including the reorganization itself, which is a rational response by its authors to T2's and the fragmentation frame's genuine evidence. It does not pick a structural answer: T3 is a misalignment that both COA A and COA B in Part III can, in principle, resolve — the definition is deliberately agnostic between repairing the seam inside the consolidation and re-attaching authority to the land. And it does not promise

resolution: T1 and T5 may admit only of management, not solution, and an approach honest about that is worth more than one that is not.

2.5 The Coverage Test

Table 2–1 maps every register condition to the tension or tensions that account for it. Per the acceptance criteria of Volume One § 6.3, "account for" means the condition is incorporated as a constraint, contested with evidence, or designated for further appreciation — none is dropped. Two conditions receive the designated treatment and are flagged accordingly.

Tension	Register Conditions Accounted For	Treatment Notes
T1 — Exposure	I-3 (land-use/tax-base loop) · I-4 (local authorities untouched) · M-4 (problem/system fit) · F-4 (risk reallocation via liability and insurance)	All incorporated as constraints; M-4 also informs T3 and the COA design space.
T2 — Regime	F-1 (funding teaches suppression) · A-5 (suppression presumption) · M-3 (two opposite fuels problems) · K-2 (metrics decoupled, shared with T6)	A-5 treated as evidence of T2's mechanism, not as verdict on USWFS intent — contested reading argued in Part V.
T3 — Governance	A-1 (authority in fire chain, no doctrine) · A-2 (accountability separated) · A-3 (delegation/decision-of-record bridged, not settled) · A-4 (review void, shared with T6) · M-1 (four statutory missions) · M-2 (trust responsibility) · W-3 (dual-fluency pipeline severed)	M-2 incorporated and additionally designated for further appreciation: tribal consultation on trust-fire doctrine exceeds this volume's evidence and must be co-produced, not analyzed from outside.
T4 — Capacity	W-1 (pipeline clock) · W-2 (change-absorption spent at concurrency) · W-3 (shared with T3) · W-4 (consensus standards as capability infrastructure, shared with T5)	All incorporated as constraints; W-2 is the binding constraint on every COA's sequencing.
T5 — Federation	I-1 (engagement by accommodation) · I-2 (all interfaces under revision) · I-5 (legitimacy differential of co-produced strategy) · F-2 (unfunded, unauthorized counterparty) · W-4 (shared)	F-2 incorporated as constraint and as live variable: institutional durability uncertainty is itself part of the problem, not background.
T6 — Knowledge	K-1 (evidence base defunded) · K-2 (metrics) · K-3 (uncontrolled experiment, evidence criteria unspecified) · A-4 (learning machinery undefined) · F-3 (sequencing inversion compromises evaluation)	K-3 converted from condition to obligation: Part VI pre-registers the evaluation criteria this volume itself will be judged by.

The test passes on coverage: twenty-five conditions, twenty-five accounted for, two designated for further appreciation with the designation justified. Multi-level honesty is auditable by inspection — three of six tensions (T1, T5, and half of T2) are located primarily outside the federal government. Solution hygiene is auditable by a single question the reader should ask of Section 2.4 now and again after Part VI: could a

reasonable analyst hold this problem definition and still recommend completing the consolidation? Part V demonstrates that the answer is yes — which is the strongest evidence available that the definition has not smuggled its answer.

2.6 The Definition in Operational Form

Analytical instruments earn their keep when they survive compression, so the definition is restated here in the form a briefing or a hearing allows. *The system creates risk where creating it pays, funds the response instead of the cure, split the fire decision from the land it decides, is spending its people faster than it makes them, runs an alliance like an org chart, and cannot measure whether any of this is working.* Six clauses, six tensions, each traceable back through Section 2.4 to the register and the record. The compression is offered with its warning attached: every clause is defensible only because the long form behind it is — used without the audit trail, the sentence is one more frame, and Section 2.3 documented what frames are. The definition now stands. Part III develops what can be done about it, by whom, in what order, at what cost — and the seam between this Part and the next is the discipline's second checkpoint: nothing in Part III is permitted to reach back and edit the problem to fit a preferred answer.

Volume Two · Part III — Developing the Approach

Design principles, the decision-rights map, three courses of action, and the no-regrets package

3.1 From Definition to Design

An approach is not a wish list; it is a set of actions assigned to actors who hold the authority to take them, sequenced against the constraints the problem definition established, with the costs stated. This Part develops the approach in four steps. Section 3.2 derives design principles from the six tensions — the tests any proposed action must pass. Section 3.3 maps the decision rights: who in the system can actually decide what, because an approach addressed to "the system" is addressed to no one. Section 3.4 specifies the no-regrets package — actions every credible future requires. Sections 3.5 through 3.7 develop the three courses of action at the structural and system level, each with its theory, its costs, and its failure modes stated at equal strength. Selection among them is deferred to Part VI, after the red team and the dissent have had their full say — the sequence is the discipline.

3.2 Design Principles

Eight principles, each derived from a tension and each stated as a test. DP-1, Rejoin judgment and consequence (from T3): strategic fire decisions must be made where land judgment, fire judgment, and accountability for outcomes can be held together — whether that place is a repaired fire chain or a restored land chain is the structural question, but any design that leaves the three permanently separated fails. DP-2, Design with local rationality (from T1, T5): actions must change what actors are rewarded for, not exhort them to act against their goal structures; a design that requires sovereigns to behave irrationally will get hedging, and deserves it. DP-3, Make the money teach the mission (from T2): funding architecture is doctrine in disguise; until risk-retiring work is funded with the reliability of suppression, every strategy document is a memo to the contrary of the budget. DP-4, Protect coordination capital (from T5, W-4): consensus standards, qualification portability, and the agreement lattice are critical infrastructure; any change that spends their legitimacy must book the cost. DP-5, Sequence to absorption (from T4): one major structural change per system per planning cycle; concurrency is a cost center, and the account is overdrawn. DP-6, Build the learning system before the test (from T6): reviews, metrics, and evaluation criteria defined in advance, by parties who disagree, or the season's evidence will be owned by whoever narrates it first. DP-7, Rebuild dual fluency (from T3, T4): the system must again produce people formed in

both fire operations and land management judgment, because doctrine cannot substitute for formation. DP-8, Match institutions to the fire that kills people (from T1, M-4): conflagration in the built environment is a multi-level program — codes, water, evacuation, structural response, land management — not a federal land agency mission; designs that promise otherwise misdirect the public they are sworn to.

The principles are tests, and they are meant to be used adversarially — against the courses of action below, against the no-regrets package, and against whatever the political system eventually produces, which will resemble none of them cleanly. Two usage rules. First, the principles conflict by design, because the tensions do: DP-5's sequencing discipline argues against the very transition DP-1's structural reading might demand, and an approach that satisfies every principle simultaneously has probably been scored generously. The discipline is to make the trade-offs explicit and priced rather than to pretend they vanish. Second, the principles bind their authors: Part IV applies them to this volume's own reasoning, and Part VI's recommendation states which principles it subordinates and why — because a framework exempting its builders is a brand, not a method.

3.3 The Decision-Rights Map

Table 3–1 states who can decide what. The map is the approach's discipline against the commonest failure of fire policy writing — recommendations addressed to authorities that do not exist.

Actor	Decision Rights Relevant to the Approach	Cannot Decide
Congress	Authorize or decline a statutory USWFS; appropriate or restructure fire accounts; transfer the Forest Service program; mandate evaluation; reform FMAG and disaster cost-shares; set pay and classification law	Operational doctrine; state and local land use; tribal compacting choices
Secretaries (DOI, USDA)	Secretarial orders and their repair; interagency doctrine; delegation and assignment rules; review processes; trust-fire doctrine (with tribal co-production); study cooperation and data access	Appropriations; statutory structure; the missions themselves
USWFS / USFS fire leadership	Internal doctrine, qualifications, assignment; transition sequencing within ordered deadlines; transparency toward partners and the study	Its own authorization or funding; bureau land objectives
NWCG member agencies (all levels)	Standards, position qualifications, crosswalks; the consensus machinery's own governance	Any single member cannot direct the others — the point

Actor	Decision Rights Relevant to the Approach	Cannot Decide
States	Their fire systems and budgets; compacts; master agreements and AOPs; building-code enablement; insurance regulation; prescribed-fire law	Federal structure; local land-use decisions (in most states)
Tribal nations	Compact and contract scope under ISDEAA; cultural fire programs; consent to trust-fire doctrine	Federal appropriations; BIA's residual structure
Local governments	Land use, codes, density, water systems, evacuation planning; district funding; mutual aid participation	The incentive architecture that rewards their current choices — which is why T1 is not addressable at the level that holds its lever

Two readings of the map shape everything after it. First, the structural fork (COA A versus COA B) belongs to Congress, informed by the Secretaries' cooperation with the study — no one else can decide it, and approaches that agitate the fork at other levels spend coordination capital for nothing. Second, T1's lever sits with actors whose incentives currently point the other way, which means the exposure tension can only be addressed by the levels that hold the *incentive* instruments — disaster cost-shares, insurance regulation, code enablement, recovery conditions — acting on the level that holds the land-use pen. That is COA C's architecture, and the map is why no federal-only approach can reach it.

3.4 Track One: The No-Regrets Package

Seven actions pass a strict test: required under COA A, required under COA B, valuable under COA C, executable under existing authority, and cheap relative to their risk reduction. They are the approach's floor, and their non-execution to date is itself a finding. NR-1, Seam doctrine now: joint secretarial direction specifying, for the 2026 season, how land objectives enter strategic fire decisions — a defined land-authority concurrence role in the decision of record, a named accountable signatory for delegations on multi-bureau incidents, and an escalation path with a clock measured in hours, not organizational levels. Imperfect doctrine issued before the season beats perfect doctrine drafted by litigation after it. NR-2, Review and learning process: a pre-defined, interagency, intergovernmental review protocol for severe outcomes under the new structure — composition, authorities, and learning-versus-blame boundaries fixed before the first fatality fire requires it (A-4). NR-3, Trust-fire doctrine, co-produced: government-to-government development, not consultation after drafting, of how trust-responsibility decisions are exercised within or alongside the unified service, including the 638 interface (M-2; designated in Table 2–1). NR-4, Stabilize the lattice: a published

federal commitment that existing master agreements, billing terms, and qualification crosswalks remain in force unmodified through a dated horizon, with revisions batched and negotiated — converting partner counterparty risk from open-ended to bounded (I-2, DP-4). NR-5, Militia and qualification repair: interagency instruments that restore the career value of fire qualification for bureau and land-agency employees — release guarantees, performance credit, training investment — because the overhead bench cannot be rebuilt any other way on any relevant clock (W-1, W-3). NR-6, Pre-registered evaluation: the criteria by which the 2026–2027 seasons will count as evidence — metrics, baselines, attribution rules — published before the seasons conclude, developed with the study vendor and the intergovernmental bodies, so the natural experiment returns data instead of narratives (K-3, DP-6). NR-7, Protect the standards body: explicit exemption of NWCG's consensus governance from directed restructuring, with its interoperability function named as critical infrastructure (W-4). The package's common property: every item reduces the cost of being wrong about the structural fork, which is the correct posture for a system that does not yet know the answer.

Execution mechanics matter as much as content, because the package's value is partly performative: it is the federal system demonstrating, to partners pricing its reliability, that it can still produce joint, dated, binding instruments. The natural vehicles exist — joint secretarial direction for NR-1 and NR-2, the government-to-government machinery and tribal leadership organizations for NR-3, the master-agreement apparatus and a published federal commitment letter for NR-4, NWCG's executive board and interagency agreements for NR-5 and NR-7, and the study vendor's scoping phase plus the intergovernmental coordinating bodies for NR-6. Cost is modest — the package is doctrine, process, and commitment rather than program — and the binding constraint is senior attention, which is precisely what the structural fight consumes. That is the package's quiet argument: every quarter spent relitigating the fork at podiums is a quarter the seven items go unissued, and the items, unlike the fork, are entirely within reach. A useful test for any official's seriousness about the system, on either side of the structural question, is whether they are working the package.

3.5 COA A — Complete and Correct

Theory. The consolidation's premise is partly right and its momentum is real; the seams are repairable; and a second structural upheaval would violate DP-5 more severely than the first did. Therefore: complete the consolidation legislatively and correct it in the act of authorizing it. Content. A statutory USWFS with: the seam doctrine of NR-1 hardened into law — land-management objectives as a statutory input to strategic fire decisions, a defined concurrence-and-override mechanism with documentation requirements, and the review process of NR-2 codified; the trust doctrine of NR-3 in statute; a qualification standard and development pathway for strategic fire roles that requires land-management

formation (DP-7); appropriations structured to fund risk-retiring work with multi-year reliability (DP-3 applied to the federal share); and the Forest Service question decided on the study's evidence rather than bundled. What it buys. Resolution of F-2's uncertainty, which is itself a major friction; preservation of consolidation's genuine gains; a single transition rather than two; and doctrine with the force of law rather than secretarial weather. What it costs and where it fails. It ratifies the sequencing inversion (F-3) and the political economy that produced it; doctrine retrofitted against an institutional culture already formed around suppression presumption may bind on paper only — organizational culture is set by an institution's critical tasks and formative cohorts, not by its directives (Wilson 1989) — the CAL FIRE comparison cuts both ways, since that institution's excellence is precisely suppression-shaped; and the land-concurrence mechanism, if drawn weakly, reproduces the legacy doctrine's frictions inside the new structure while satisfying no one. Failure mode: a statutorily completed organization whose first contested-strategy catastrophe reveals the concurrence mechanism as ceremonial — the seam, with a law on top of it.

The design problem inside COA A is therefore the concurrence mechanism, and it deserves specification because its strength is the entire difference between A and a ratified seam. A binding version has identifiable properties: the land authority's objectives enter the decision of record as requirements, not advisories; strategy selections departing from them require documented justification and trigger automatic elevation with a clock; the land official's concurrence or non-concurrence is recorded in the same signed instrument as the fire official's decision, so accountability is legible after the fact; the review process of NR-2 examines departures as a standing question; and the qualification standard for strategic fire roles requires demonstrated land-management formation, with bureau detail assignments as the pipeline (DP-7). The legislative architecture should also decide the Forest Service question on its own evidence rather than bundling it: the study's scope covers consolidation's merits, and a COA A that transfers 193 million acres' protection by rider — the move the FY2027 proposal previewed — would reproduce the sequencing inversion inside the statute meant to cure it. Done with these properties, COA A is a genuine answer to T3; done without them, it is the as-built structure with better stationery, and the difference will be discovered at the worst available moment.

3.6 COA B — Federated Redesign

Theory. The lesson of the system's own most successful design — FIRESCOPE — is that interoperability comes from unifying interfaces, not institutions (Vol. I § 3.2): consolidate what is genuinely common, re-attach what is genuinely mission-bound. Content. A unified wildland fire *support* service holding the functions whose fragmentation costs were documented and real — aviation, procurement, logistics, predictive services, dispatch technology, pay administration, workforce programs — while strategic fire authority

returns to accountable land officials under a reformed and mandatory agency administrator regime: required qualification and certification (no more uneven fluency by default), a standing fire deputy at each unit, decision-support and delegation instruments retained, and the militia rebuilt as a condition of the design (DP-1, DP-7 satisfied structurally rather than doctrinally). What it buys. Direct resolution of T3 at its root; preservation of the four missions' statutory integrity without a concurrence mechanism's ambiguity; alignment with the federation's grain (DP-2, DP-4) — partners re-engage with counterparts whose authority maps to their accountability. What it costs and where it fails. It is a second reorganization, and W-2's account is overdrawn: the transition cost is paid in the same scarce currency regardless of the destination's merits, and DP-5 is violated by this volume's own principle unless the redesign is executed on a multi-year glide rather than a clock like the last one. It reads politically as reversal, which prices in executive resistance and a contested implementation. And it restores the legacy doctrine's named weaknesses unless the AA reform is real, funded, and enforced — the failure mode is a restoration that keeps the old doctrine's frictions and adds a demoralized, twice-reorganized fire service. The honest statement: COA B is the better end-state and the worse transition, and the analysis cannot wave away either half.

If the fork resolves toward B, transition design is where the COA succeeds or destroys itself, and three commitments are load-bearing. *The glide*: a mandated multi-year schedule — support-function consolidation completing first, since it is common ground; strategic-authority re-attachment phased by geographic area across at least three seasons, each phase gated on the AA qualification standard being met by the receiving officials, not on the calendar. Authority returns when the unit has demonstrably rebuilt the capacity to hold it; a restoration to unqualified administrators recreates the indictment that justified the consolidation. *The keep-list*: the redesign must specify in statute what is not reversed — unified aviation, procurement, pay administration, predictive services, dispatch technology — because without a protected keep-list the transition politics will relitigate everything, and the consolidation's genuine gains are the system's only profit from the whole episode. *The people*: the fire professionals who built careers in the consolidated service are owed explicit pathways — the support service's leadership, the unit fire-deputy structure, the strategic-role qualification track — stated at announcement, because a redesign experienced as repudiation by the workforce that must execute it has chosen its own failure mode, and W-2 has already named the price.

3.7 COA C — The System Compact

Theory. T1 and the larger share of T2 live outside the federal structure entirely; no resolution of the A/B fork touches them; and the only instruments that reach them are intergovernmental — therefore a compact track, pursued under any structural outcome, addressed to the incentive architecture itself. Content. Built on the machinery that

already exists and carries co-produced legitimacy (I-5): the Cohesive Strategy's governance and the 2023 Commission's consensus recommendations, converted from reports into instruments — disaster cost-shares and recovery funding conditioned on adopted hazard codes and land-use standards (the FMAG reform lever, applied with a glide path); a mitigation funding stream with suppression-grade reliability, federal and state, retiring T2's asymmetry; insurance-regulatory coordination that prices mitigation into premiums rather than pricing whole regions out; community capability programs that treat structural protection, water, and evacuation as the multi-level program DP-8 names; and tribal cultural-fire and 638 expansion as a capacity strategy, not a courtesy. What it buys. The only track that bends the consequence curve, because it is the only track addressed to where consequence is created. What it costs and where it fails. It is the hardest collective action in the set — conditioning disaster aid is politically radioactive in exactly the districts that burn; its clock is decadal while the political system's is biennial; and it has failed before, repeatedly, as exhortation. The design answer to the history of failure is DP-2: prior cohesive-strategy rounds asked governments to act against their incentives; the compact must *change the incentives* — which is why the cost-share and insurance levers, the coercive edge prior rounds lacked, are not optional features but the entire difference. Failure mode: a strategy 2.0 that is a strategy 1.0 with newer letterhead.

The compact's instruments deserve one level more specificity, because the difference between exhortation and exchange lives there. The cost-share lever operates on a glide: jurisdictions adopting the hazard-code and land-use standards retain or improve current disaster cost-shares, while non-adopting jurisdictions see shares step down over a published decade — long enough to act, certain enough to matter, with hardship provisions for communities that lack capacity rather than will. The mitigation parity measure is the coalition builder and goes first: a federal-state matched, multi-year-reliable funding stream for fuels, home-hardening, and community protection that pays jurisdictions for doing what the cost-share lever will later expect — carrots front-loaded, conditions phased, which is how durable compacts are actually assembled. The insurance coordination connects regulators, carriers, and the mitigation record so that documented parcel- and community-scale work moves premiums and availability — converting the market's retreat from a pure harm into a price signal pointing the right direction. And the tribal track funds cultural-fire and 638 capacity as national capability rather than as accommodation, because Volume One documented it as one of the system's few growing sources of land-fluent fire practitioners. None of these instruments is novel; all have precedents in flood, seismic, and public-health policy; what has been missing is assembly — and a forcing event, which the era now supplies annually.

3.8 Options Considered and Set Aside

Completeness requires stating what the COA space excluded and why, because rejected options discipline the survivors. *Pure restoration* — reversing the consolidation to the 2024 arrangement without the reformed AA regime — fails the problem definition outright: it restores the trajectory the dissent correctly indicts, pays a second transition for it, and is COA B with the only part that answers T3 deleted. *Maximal consolidation* — a true national fire service absorbing state and local wildland response, the logical terminus of the fragmentation frame — fails T5 at the constitutional layer and DP-2 at every layer: it would convert fifty functioning sovereign systems into branch offices of an institution Congress has so far declined to fund at its current size, and its sole working analogue operates at state scale under a single sovereign, which is the condition the proposal cannot replicate. *Contracted surge* — meeting T4 by privatizing capacity at scale — was set aside as a partial instrument rather than a COA: contract resources already carry a meaningful share of the load and can carry more, but command, land judgment, and the trust obligation are inherently governmental in the exact functions where the tensions live. And *drift* — the unchosen default in which the fork is decided by appropriations attrition, the doctrine voids fill by accident and litigation, and the compact never convenes — is recorded here as a course of action because it is one, currently the leading one, and every comparison in Table 3–2 should be read against it rather than against an imagined neutral baseline. Drift scores worst on every dimension except the only one the political system prices weekly: it requires no one to decide anything.

3.9 The Courses of Action, Compared

Table 3–2 compares the three surviving COAs against the tensions and principles. COA C is not an alternative to A or B but the orthogonal track both require; it is tabled with them because resource and attention allocation among the three is itself a decision.

Dimension	COA A — Complete and Correct	COA B — Federated Redesign	COA C — System Compact
Tensions addressed	T3 (by doctrine-in-statute), T5 partially (F-2 resolved), T6 (review codified)	T3 (structurally), T4 partially (militia rebuilt by design), T5 (alliance grammar restored)	T1 and T2 directly — the tensions no structural COA reaches; T5 reinforced
Principal decider	Congress (authorization), informed by the study	Congress (authorization), informed by the study	Governors, tribal leadership, Congress (cost-share and funding statutes), insurance regulators

Dimension	COA A — Complete and Correct	COA B — Federated Redesign	COA C — System Compact
Transition cost (W-2)	Low — one transition, already largely paid	High — second reorganization; survivable only on a gated multi-year glide	Low to the fire system; high political capital elsewhere
Principle subordinated	DP-1 held by mechanism rather than structure — the design bet	DP-5 — knowingly violated, priced, and phased	None internally; DP-2 is its method — but its clock subordinates urgency
Key failure mode	Ceremonial concurrence: the seam with a law on top	Forced-clock restoration: old defects back, new demoralization added	Letterhead strategy: instruments diluted to exhortation
What would indicate it is working	Land objectives demonstrably binding in decisions of record under load	Gated phases met on qualification, not calendar; partner re-engagement metrics recover	First binding instrument enacted; consequence divergence between adopting and non-adopting jurisdictions emerges over a decade

> The approach in one sentence. Do now what every future requires (NR-1 through NR-7); decide the structural fork once, at the study, on pre-registered evidence, between an honestly costed COA A and an honestly costed COA B; and open the compact track immediately, because the exposure curve is the only line on the chart that decides whether any of the rest mattered.

Volume Two · Part IV — Red Team Assessment

Directed at this volume's own reasoning: assumptions, biases, and the low-probability risks the analysis underweights

4.1 The Author Community's Position Is a Bias Vector

This analysis was produced from inside the operational fire community by authorship formed under the legacy doctrine, for a readership of the same formation, and that position generates predictable distortions that must be named before the recommendation is read. The agency administrator doctrine is not merely a governance arrangement to this community; it is the institutional expression of how its senior members learned to understand their own competence and worth, and an analysis that concludes the doctrine's core should be preserved (COA B's end-state preference, visible in Section 3.6's closing sentence) is concluding something its authors are identity-invested in. The specific mechanisms to audit: *loss aversion* — the seam's costs are vivid and documented because friction documents itself, while consolidation's benefits are diffuse, prospective, and systematically harder to evidence, so the ledger is structurally tilted before analysis begins; *status quo ante bias* — "the legacy system's coordination machinery demonstrably worked" (Vol. I § 3.4) is true and is also exactly the sentence every defender of every displaced arrangement has ever written; and *local rationality's double edge* — the framework that dignifies partners' hedging as rational can dignify anything, including this community's resistance, and the volume's repeated use of it for sympathetic actors and structural framing for the reorganization's authors is a thumb on the scale the careful reader will have noticed. The discipline applied: the dissent in Part V is argued at full strength, the coverage test in 2.5 required the definition to survive a pro-consolidation reading, and the recommendation in Part VI is falsifiable on stated criteria. The bias is not thereby removed; it is disclosed, which is the available remedy.

4.2 Challenges to the Problem Definition

Four challenges with real force. The register may over-sample friction. Volume One's as-built record was assembled during a transition's loudest year from sources — congressional hearings, partner correspondence, press coverage — that select for grievance; a register assembled in 2028 from operational data might weight differently, and T5 in particular rests partly on predicted rather than observed partner behavior. Response: the prediction is derived from documented incentive structure, not sentiment, and NR-6 exists precisely to replace prediction with measurement — but the challenge stands as a calibration warning. T3 may be transitional, not structural. Doctrine

famously follows structure; ICS itself was codified after the forcing event, not before; the seam's doctrine vacuum at month nine may be ordinary institutional lag misread as design failure. Response: possible, and Part V develops it — but A-4's review void and the qualification silence are voids of a kind that lag does not explain, because they cost nothing to fill and have not been filled. The definition's altitude may be an evasion. Six tensions across all levels of government can function as sophistication's version of the climate frame — everyone responsible, no one accountable, all options open. Response: the decision-rights map and the addressed, dated no-regrets package are the rebuttal in practice; the reader should judge whether they cash the altitude into obligation. The exposure tension may be overweighted by recency. T1's primacy leans on the LA fires; a 2026–2028 run of remote megafires would re-weight toward T2 and the federal estate. Response: structure-loss concentration in the interface is a two-decade trend, not an event — but the portfolio point is fair, and Part VI's falsification criteria include it.

4.3 Challenges to the Approach

The no-regrets package is not free. NR-1's seam doctrine, issued fast, could harden a bad allocation of decision rights that statute later has to dislodge; NR-4's lattice freeze preserves agreements the consolidation was partly justified by reforming; NR-7's NWCG exemption can shelter the veto architecture the dissent indicts. Each is a real cost; the package's defense is that every alternative — doctrine by litigation, lattice by improvisation, standards by direction — costs more, but "no-regrets" overstates and "lowest-regret" is the honest label. The study-as-adjudicator assumption is the approach's soft spot. Part VI routes the structural fork through a feasibility study that F-3 has already documented as compromised — late, under-resourced, evaluating an organization with sunk costs and a constituency, in a political environment that proposed the answer first. If the study arrives as ratification rather than analysis, Track Two has no adjudicator and the approach must say what happens then; Section 6.3 now does. COA B's glide-path assumption may be fantasy. The redesign's costs were priced assuming a multi-year transition; American political clocks do not grant multi-year glides to reversals, and a COA B executed on a forced clock is W-2's violation squared — arguably the worst outcome in the space. Low-probability, high-impact risks the analysis underweights: a mass-casualty fire under contested authority producing criminalized decision-making and a doctrine written by prosecutors; a state-led compact coalition that routes around the federal system entirely, solving T5 by partition; an insurance-market cascade that moves T1 faster and more brutally than any policy track; and a quiet success — a benign 2026 season read as vindication, freezing every seam in place until the regime supplies the test under worse conditions. The last is the likeliest and the least discussed.

4.4 Net Assessment After Red Team

What survives the red team, stated plainly. The problem definition survives with one calibration and one obligation: T5's partner-behavior content is downgraded from finding to evidence-pending prediction until NR-6's measurement replaces it, and the exposure tension's primacy is held provisionally against the portfolio warning. The no-regrets package survives with its label corrected to lowest-regret and with NR-1 carrying an explicit revision clause so fast doctrine cannot harden into bad doctrine. The approach's deepest exposure — the study-as-adjudicator assumption — does not survive unmodified: Part VI now carries the contingency the red team demanded, specifying what the recommendation becomes if the study arrives as ratification. And the bias disclosure of 4.1 converts into a standing rule for the work's use: any reader applying this volume inside the operational fire community should weight the dissent one increment heavier than the authors did, as compensation for the formation they share with the authors. A red team that changes nothing was decoration; this one changed the label on the package, the contingency in the recommendation, and the confidence interval on two tensions — which is the appropriate yield from an honest pass.

Volume Two · Part V — Dissenting Alternative

The consolidation-succeeds reading, argued at full strength, with the approach that follows from it

5.1 The Dissent's Problem Definition

A credible analyst holding Volume One's entire evidence file can define the problem differently, and the definition deserves full voice: *the American wildfire system's central problem is institutional sclerosis — an accreted architecture of veto points, consensus processes, and diffused accountability that could neither fix its documented failures nor be reformed from within — and the 2025–2026 reorganization is not the problem but the first successful application of force to it in a generation.* The supporting record is in this project's own volumes. Two decades of consensus machinery produced the documented fragmentation costs and did not retire them; the 2014 Cohesive Strategy and the 2023 Commission produced co-signed reports and no structural change; the militia and the AA doctrine were hollowing for twenty years under every incentive the legacy system controlled and the legacy system did not repair them; and the interagency process that critics now mourn was the same process that could not deliver aviation consolidation, pay reform, or predictive-services integration until executive orders forced the clock. On this reading, Volume One's friction map documents transition costs and reads them as design flaws — the predictable noise of any forcing function, narrated by the communities being forced.

5.2 The Dissent's Supporting Argument

Four planks, each evidenced. Unified fire institutions work. CAL FIRE — a consolidated, command-structured, suppression-capable state fire service — is the most capable wildfire institution in the world by most operational measures, and it protects a 31-million-acre estate with statutory resource responsibilities of its own; the claim that unified structure cannot serve land missions is contradicted by the largest working example, and the military analogy runs the same direction: no one proposes that theater commanders be replaced by committees of the interests their operations affect. Doctrine follows structure — reliably. ICS was built inside a congressionally forced program after the 1970 siege; NIMS was directed by presidential order after 9/11; the 1995 policy followed the 1994 deaths. The system's every doctrinal achievement was codified after a forcing event restructured the incentives, and the seam doctrine the critics demand in advance has never, in this system's history, been produced in advance. The first-season suppression presumption is prudence, not character. A new institution's first escaped

managed fire would be existential; the presumption is the rational opening posture of an organization protecting its mandate to do later what it cannot yet afford to risk — and reading it as cultural destiny commits the same formation-determinism the volume elsewhere cautions against. The counterfactual is not the legacy system; it is the legacy trajectory. The relevant comparison for the reorganization is not 2024's arrangements but where those arrangements were heading — a militia in terminal decline, an AA cadre of uneven fluency the agencies declined to fix, compounding fuels debt under a funding architecture no consensus process touched. Against the trajectory, a flawed forcing function beats a dignified drift.

The dissent's own soft points, disclosed with the same candor it demands. The CAL FIRE plank proves a unified service can be excellent; it does not prove one can be excellent at four statutory missions it was not formed in — CAL FIRE's resource responsibilities are real but are not the Organic Act, the Refuge Act, and the trust obligation, and the analogy's force diminishes exactly where T3's force begins. The doctrine-follows-structure plank is historically true and cuts both ways: every doctrine the forcing events produced was written by institutions that retained accountable centers — the 1995 policy presupposed the agency administrator it strengthened — and the present structure has no equivalent center for the doctrine to form around, which is the void's point. And the sclerosis definition, pressed hard, proves too much: if consensus machinery's failure to self-reform justifies executive force, the principle licenses any reorganization of any federated system by whoever holds the clock — a rule the dissent's own sponsors would not accept applied against them. The dissent stands as a serious reading, not a convenient foil; these disclosures are why it carries a third of the weight rather than half.

5.3 The Dissent's Approach — and What Would Decide Between Us

From this definition the approach follows cleanly: help the consolidation succeed, fast, and treat relitigation as the threat. Fund and authorize the USWFS now — F-2's uncertainty is the largest single friction in the partner system and Congress, not the executive, is sustaining it; staff the doctrine and qualification voids from inside the new structure, where they will be owned rather than resented; execute the Forest Service transfer so the system stops paying two-headquarters costs for one mission; and let the study document implementation rather than adjudicate existence, because the decision was made where the Constitution locates it and the system's pathology is precisely its habit of unmaking decisions through process. The dissent concedes Track Three: the compact layer and the exposure tension are real and orthogonal, and the dissent's strongest critique of the main analysis is that it spends its sophistication on the federal fork — the question its authors are identity-invested in — while agreeing that the

consequence curve is decided elsewhere. What would decide between the dissent and the main analysis, stated as observables both sides accept in advance: if the seam doctrine, review process, and trust doctrine are produced from inside the new structure within four quarters without statutory force, the transitional-lag reading strengthens decisively; if partner agreement completion, mobilization acceptance, and fuels accomplishment hold at baseline through 2027, T5's prediction weakens; if the qualification and militia voids remain unaddressed after the uncertainty F-2 names is resolved, the structural reading strengthens; and if a contested-strategy severe outcome is reviewed credibly under NR-2's machinery — or cannot be — the system will have run the experiment neither side can run on paper. The dissent is not a courtesy; on present evidence the main analysis assesses it as carrying perhaps a one-in-three weight, which is too heavy to dismiss and too light to govern by — and Part VI's recommendation is built to remain defensible under either reading.

Volume Two · Part VI — Recommended Course of Action

The phased composite, implementation considerations, inflection points, and what would tell us we're wrong

6.1 The Recommendation

Recommended COA: the phased composite. Execute Track One — the no-regrets package, NR-1 through NR-7 — immediately, under existing secretarial and interagency authority, with the seam doctrine and review process complete before the 2026 season peaks. Hold the structural fork — COA A, complete-and-correct, versus COA B, federated redesign — open until the feasibility study reports, and decide it then, in authorizing legislation, against the pre-registered criteria of Section 6.3; do not decide it by appropriations rider, by transfer fait accompli, or by a benign season's narrative. Launch Track Three — the system compact — now, through the Cohesive Strategy and Commission machinery, with the incentive instruments (cost-share conditioning, mitigation funding parity, insurance coordination) as its non-negotiable core, because its clock is decadal and every year of delay is compounded at the exposure curve's rate. The composite's logic is risk posture, not indecision: the system does not yet know the structural answer — the red team and dissent establish that honestly — and the correct design for a system that does not know is one that reduces the cost of being wrong while the evidence is bought. That is what Track One does, what pre-registration does, and what refusing premature foreclosure of the fork does.

On the fork itself, stated plainly because a recommendation owes its reader its lean: this analysis assesses COA B as the better end-state — DP-1 satisfied structurally rather than doctrinally is worth more over decades than any concurrence mechanism — and COA A as the better transition, and it weights the transition more heavily than its authors' formation would prefer, because W-2 is the binding constraint and the red team's warning about a forced-clock COA B is the most credible catastrophic branch in the space. Operationally: if the study and the season's evidence show the seam doctrine binding in practice — land objectives demonstrably entering decisions of record, the concurrence mechanism exercised and respected under load — then COA A completed in statute is the recommendation. If they show the doctrine ceremonial, the case for paying COA B's transition cost is made by the consolidation's own conduct, and the legislation should pay it on a mandated multi-year glide. Either way the fork is decided once, on evidence, by the actor who holds it.

6.2 Implementation Considerations

Five considerations govern execution. *Sequencing*: Track One's seven actions are deliberately within secretarial reach — the package's political design is that it requires no one to concede the fork in order to act, and its issuance should be joint, dated, and public, because partner re-engagement (T5) prices visibility as heavily as content. *The study's integrity*: the recommendation's hinge is an honest adjudicator, so the executive's obligations are operational — vendor independence, full data access including WFDSS-successor decision records and partner-agreement metrics, publication of NR-6's criteria before the season ends — and Congress's obligation is to protect the study's scope from appropriation-cycle foreclosure. *The compact's coalition*: Track Three should be launched by governors and tribal leadership with federal participation rather than the reverse — I-5's legitimacy evidence is unambiguous about which direction survives — and its first instrument should be the mitigation-funding parity measure, which builds the coalition the cost-share conditioning will later need. *Communication discipline*: every instrument in the approach should state what it is not — the seam doctrine is not a verdict on consolidation, the lattice stabilization is not a freeze on reform, the study criteria are not a referendum — because in a contested environment, unstated scope is conceded scope. *The people*: every track draws on the same workforce the problem definition named as the binding constraint; implementation budgets must price backfill, and leaders at every level should treat their personnel's change-absorption as the finite operational resource it is, because the approach fails quietly there before it fails visibly anywhere else.

A sixth consideration is the season already underway. The 2026 fire year will not wait for any instrument in this volume, and the near-term posture follows from the analysis: operate the bridge guidance as written, because mid-season authority improvisation is worse than imperfect doctrine; treat every multi-bureau strategic decision as a documentation opportunity — the season's decisions of record are NR-6's raw evidence whether or not NR-6 is issued in time; and resist the narrative reflex in both directions when the season produces its events, because a benign season proves little about a structure the weather declined to test, and a catastrophic one will be claimed by every frame in Section 2.3 within the news cycle. The system's leaders cannot control the season; they control whether it is legible afterward, and that is a present-tense operational duty, not an analytical aspiration.

Table 6–1 sequences the composite for the actors who hold each action. Clocks are stated as quarters from issuance of this analysis; "gate" names the condition that opens the next move.

Move	Action and Instrument	Actor	Clock / Gate
1. Issue the package	NR-1 seam doctrine and NR-2 review process by joint secretarial direction; NR-4 lattice commitment published	Secretaries (DOI, USDA)	Q1–Q2; before peak season
2. Open the co-productions	NR-3 trust-fire doctrine via government-to-government process; NR-5 militia/qualification instruments; NR-7 standards-body protection	Secretaries; tribal leadership; NWCG members	Q1 start; NR-3 paced by tribal process, not the calendar
3. Pre-register the evidence	NR-6 evaluation criteria, baselines, and attribution rules published with study vendor and intergovernmental bodies	Study vendor; agencies; WFLC machinery	Before season close; gate for Move 5
4. Launch the compact	Mitigation-parity funding measure introduced; compact convened by governors and tribal leadership with federal participation	Governors; tribal nations; Congress	Q2–Q4; first binding instrument within two cycles or DP-2's verdict applies
5. Decide the fork	Authorizing legislation selecting COA A (with binding concurrence) or COA B (with gated glide), against pre-registered criteria	Congress	Within two authorization cycles of study delivery; gate: Moves 1 and 3 complete
6. Audit the analysis	Falsification criteria of § 6.3 reviewed against two seasons' evidence; this volume revised or retired accordingly	The authors — and the readers	Standing; first formal pass after the study

6.3 Inflection Points and Falsification Criteria

The approach pre-commits to its own checkpoints. Inflection points: the study's delivery (decide the fork within two authorization cycles or the decision has been made by drift, and drift is a COA — the worst one); the study's integrity itself (if the study arrives as ratification — scope narrowed, data withheld, criteria unpublished — the recommendation's adjudicator has failed, and the contingency is explicit: Congress should treat the pre-registered NR-6 record and two seasons' operational evidence as the study, through its own oversight machinery, rather than accept a compromised instrument or default to drift); the first contested-strategy severe outcome (NR-2's review is the system's credibility test, and its conduct should be treated as evidence about the structure, per the dissent's shared observable); the FY2028 budget (whether risk-retiring work achieved funding reliability is T2's scoreboard, and a third consecutive suppression-shaped budget refutes the approach's premise that the money can be retaught); and the

compact's first instrument (if Track Three has produced no binding measure by the second cycle, it is exhortation again, and DP-2's verdict applies to this volume's own work). What would tell us we're wrong — the criteria under which this analysis, not merely its subjects, fails: if the new structure produces binding seam doctrine, credible review, and trust doctrine from within, on its own initiative, the structural reading of T3 was wrong and the dissent governs; if partner engagement metrics hold through two seasons of stabilized agreements, T5 overweighted prediction against incentive-based hedging that did not materialize; if a decade of exposure-side instruments produces no measurable consequence divergence between adopting and non-adopting jurisdictions, T1's centrality — the analysis's deepest commitment — was misplaced; and if the system absorbs the reorganization's concurrency without the attrition and pipeline losses W-2 predicts, the capacity tension was elastic where this volume declared it binding. The criteria are stated now, in advance, because the volume that demanded pre-registered evidence of the system owes the system the same — what was, what is, what's going to be, and what would tell you you're wrong. The appreciation is on the record; the problem is defined; the approach is addressed, sequenced, and falsifiable. The work from here is not analytical. It is institutional, and it belongs to the actors named in Table 3–1 — which is where a volume like this one is supposed to end.

6.4 The Look Forward: From Approach to Futures

One obligation remains, and it cannot be discharged in this volume's form. The falsification criteria above are promises about time: every inflection point, every pre-registered criterion, every COA's failure mode resolves in futures that do not yet exist — and an approach tested only against the present has been tested against the one condition guaranteed not to persist. The six tensions do not resolve to a single forecast; they combine, and their combinations diverge. Whether the structural fork settles or drifts, whether the system's incentives are repriced or persist, whether the federation re-engages or hedges into blocs — these interact, compound, and close doors quietly, decades before the closing is felt. The companion analysis to this work, *Alternative Futures Following the American Wildfire System Reorganization*, carries the discipline forward: four distinct, plausible futures to 2046, each built from a combination of the six tensions, each with its history written backward from its world — and the approach of this volume wind-tunneled through all four, so that its robust elements, its fragile ones, and the decisions that foreclose entire futures are visible while the choices are still open. The two-volume work behind you is the look back; the futures analysis ahead is the look forward; and the seam between them is the present — the only place a leader's decisions ever operate.

References (Volume Two)

Volume Two's evidentiary base is Volume One, cited by Part, section, and register-condition identifier throughout. New sources introduced in this volume:

Ostrom, Elinor. 2010. "Polycentric Systems for Coping with Collective Action and Global Environmental Change." *Global Environmental Change* 20 (4): 550–557.

Rittel, Horst W. J., and Melvin M. Webber. 1973. "Dilemmas in a General Theory of Planning." *Policy Sciences* 4 (2): 155–169.

Wilson, James Q. 1989. *Bureaucracy: What Government Agencies Do and Why They Do It*. New York: Basic Books.

Movement II — Alternative Futures Following the American Wildfire System Reorganization

Four Futures to 2046

How to Use This Analysis

This document is the forward look. Its companion, *The American Wildfire System Under Reorganization* (Volumes One and Two), appreciated the system's context, defined its problem as six structural tensions, and developed an approach with a recommendation, a red team, and falsification criteria. Those criteria are promises about time — and this analysis is where the time lives. It builds four distinct, plausible futures of the American wildfire system in 2046, each a different combination of how the six tensions resolve or fail to, and uses them the way force planners use alternative futures: not to predict, but to test — to expose the assumptions today's decisions silently carry, to show which present choices are robust across futures and which are bets on a single one, and to make visible how the decisions of 2026–2030 open or foreclose the choices available to the leaders of 2046.

Three instructions for use. First, *do not pick a favorite.* The futures are not a menu, and the analysis fails the reader who treats one as a forecast; their value lies in being held simultaneously — the discipline of operating in the present while multiple futures remain live. Second, *argue with the signposts, not the narratives.* Each future is fiction built on documented structure; the narratives exist to make the structure feelable, but the operational content is the signpost catalog and the wind-tunnel results in Parts VII and VIII, which is where a leadership team's annual review should spend its time. Third, *audit your own assumptions against Part VIII* — the assumption-based planning chapter — which converts the futures into the question that matters at every level of the system: what is your organization currently assuming that only some of these futures honor? Readers wanting the whole argument in minimum pages should read Part II, one future of their choosing in full, Section 7.5, and Part VIII.

This work operates at the system level. The *Operational Leader's Field Guide* and its *Companion* (Cogplexiti, 2026) operate at the operational-leader level — the leader's own decision discipline under pressure. *The Incident Tier* addresses the tier between them — how a system decides what to protect when demand exceeds capacity, the discipline this document's grimmest future shows operating under failure. Together they are intended as a single body of work, readable from the national architecture down to the individual decision, or back up.

Part I — Why Futures, and How These Were Built

The method: alternative futures in the force-planning tradition, adapted to a federated civil system

1.1 The Planning Problem Futures Exist to Solve

Institutions that must commit resources today against outcomes decades away face a structural temptation: plan against the single future the institution finds most likely — or most comfortable — and optimize for it. The military planning community spent the late twentieth century learning what that costs: forces exquisitely fitted to the predicted war and brittle everywhere else, with the prediction's errors discovered in contact. The correction, developed substantially at RAND, was a family of methods — alternative futures analysis, assumption-based planning, uncertainty-sensitive and capabilities-based planning — that replaced the question "what will happen?" with three better ones: what could plausibly happen; what are we assuming when we act as if we know; and which of today's options perform acceptably across the range rather than optimally at a point (Dewar et al. 1993; Dewar 2002; Davis 1994; Lempert, Popper, and Bankes 2003). The wildfire system's planning problem is structurally identical and in one respect harder: a force planner serves one sovereign, while this system's futures will be produced by the semi-independent choices of Congress, two departments, fifty states, hundreds of tribal nations, thousands of local governments, and an insurance market — which makes the single-point forecast not merely risky but meaningless, and makes the futures method not a luxury but the only honest grammar available.

Two properties of the method matter for how this document should be read. Futures are *instruments, not predictions*: each is deliberately stretched to the edge of plausibility — distinct enough that the differences between futures dominate the uncertainties within them — because futures that cluster around the expected case test nothing. And futures are *internally consistent*: each is built so that its world follows from its history and its history from identifiable decisions and events, because the analytical payload is precisely the causal chain — the demonstration that worlds twenty years apart in character can share a common present, separated only by choices that looked small when they were made.

1.2 How These Futures Were Built

The construction followed five steps, documented so the work can be critiqued and rebuilt as evidence arrives. *Step one: drivers.* The six tensions of Volume Two — exposure, regime, governance, capacity, federation, knowledge — are the endogenous drivers: the

misalignments whose resolution or persistence differentiates futures. To them Part II adds the exogenous drivers — the fire regime's trajectory, the fiscal-political environment, technology, the insurance market, and demography — that shape all futures but are decided by no one in the system. *Step two: axes.* From the tensions, two critical uncertainties were selected as scenario axes — institutional settlement and incentive repricing — on the criteria the method prescribes: highest impact on the system's character, genuinely uncertain in direction, and substantially decidable by actors within the system (Section 2.4 defends the selection and Section 2.5 states what was deliberately not made an axis). *Step three: worlds.* The axes' four combinations were each developed into a full future: the world of 2046, the history that produced it written backward, the state of all six tensions and the system's five feedback loops in that world, and ground-level vignettes. *Step four: signposts.* For each future, observable early indicators — events and measurements visible from 2026–2031 — were derived, and consolidated into the catalog of Section 7.4. *Step five: wind-tunneling.* The approach of Volume Two — the no-regrets package, the three courses of action, and the recommendation — was tested against all four futures, and the load-bearing assumptions of current national policy were audited the same way (Sections 7.5–7.6 and Part VIII).

Three construction rules were applied throughout and should be held against the work. *All events after June 10, 2026 are scenario constructs* — every fire, statute, failure, and success named in the futures is invented for analytical purposes, designed for plausibility, and asserts nothing about any real person or jurisdiction. *The weather is held common*: all four futures run on the same median climate-and-fire-load pathway, with the same hard seasons arriving in the same years — because the differences this analysis exists to illuminate are institutional choices, and a future that owes its character to a kind regime or a cruel one teaches nothing about decisions (the regime's own deep uncertainty is acknowledged in Section 2.5 and handled as a stress test, not an axis). And *no future is a utopia or a morality tale*: every future contains genuine gains, genuine losses, and people behaving rationally — the same local-rationality standard the companion volumes applied to the past is applied here to the futures, because futures populated by fools and villains flatter the reader and test nothing.

1.3 The Limits of the Method, Stated in Advance

Futures work carries failure modes the reader should hold against this document, because they cannot be engineered out — only disclosed and watched. *Scenario seduction*: well-built futures are narratively satisfying, and satisfaction breeds belief; the reader who finishes Part VI convinced one future is coming has been failed by the craft, not informed by it. *The four-corner trap*: a matrix implies reality will land in a corner, and it will not — the actual 2046 will be a blend, a sequence, or a geography of these futures (the Patchwork is, in part, the other three distributed across a map), and the corners exist to

stretch the possibility space, not to tile it. *Narrative bias inherits authorial bias*: these futures were built by the same analysis the companion volumes' red team indicted for formation-loyalty to the legacy doctrine and friction-weighted evidence, and the reader should assume the Iron Service is drawn one shade darker, and the Settled System one shade warmer, than a differently formed analyst would draw them — the correction, as before, is the dissent discipline: the Iron Service's own officers were given the future's best arguments, and Part VII's findings were tested for survival under the pro-consolidation reading. *Constructed events are arguments wearing dates*: every fire, statute, and failure after June 2026 is an analytical device, and a reader who disputes a construct's plausibility is invited to replace it and see whether the future's logic survives — most do, because the futures rest on incentive structure rather than on any single event, and where one does not, the analysis has been usefully falsified. The method's honest claim is modest: not that these futures will happen, but that a system which can navigate among these four will not be ambushed by whatever actually arrives — and that a system planning against one forecast will be.

> The analytical wager. Twenty years is long enough for every tension to fully express itself and short enough that the leaders who will live in 2046 are already in the system — today's captains and district staff are 2046's chiefs and administrators. These futures are not about other people. They are the working conditions this generation's decisions are currently writing for its own later career, which is why the document's final question is not "which future will happen" but "which futures are your current decisions keeping reachable."

Part II — Drivers, Uncertainties, and the Architecture of the Futures

From six tensions and five loops to two axes and four worlds

2.1 The Endogenous Drivers: Six Tensions in Motion

Volume Two defined the problem as six structural tensions; this analysis treats them as the system's degrees of freedom — the dimensions along which futures can genuinely differ because actors inside the system can genuinely move them. Restated as future-tense questions: Will the exposure loop be repriced, so that risk creation begins to carry its own cost (T1)? Will the funding architecture be retaught, so that risk-retiring work acquires suppression-grade reliability (T2)? Will land judgment and fire judgment be rejoined in an accountable place — by binding doctrine inside the consolidation, by structural re-attachment, or not at all (T3)? Will the qualification pipeline and change-absorption account be rebuilt faster than they are spent (T4)? Will the federation re-engage as an alliance, or hedge into blocs and conditional cooperation (T5)? And will the system build the measurement and learning machinery to see its own performance, or continue navigating by narrative (T6)? Each future in Parts III through VI is, formally, one configuration of answers — and the configurations were chosen so that the four futures, taken together, exercise every tension in both directions.

2.2 The System's Five Feedback Loops

Tensions describe misalignments; loops describe how misalignments compound, and the futures track both because complexity lives in the loops. Five govern this system. L1, the suppression–fuels loop: effective suppression removes fire from fuels, fuels accumulate, future fires intensify, intensity demands more suppression — the documented paradox by which success manufactures the conditions of failure (Calkin, Thompson, and Finney 2015). L2, the development–protection loop: interface development funds local protection and expects higher-level rescue; protection and rescue make development feel safe; safety invites development — T1's engine. L3, the trust–engagement loop: demonstrated counterparty reliability invites partner commitment, which produces joint success, which builds reliability — a loop that runs in reverse with equal efficiency, as Volume One documented in 2026. L4, the pipeline–attrition loop: a thinning qualified bench raises load on those remaining, which accelerates attrition, which thins the bench — and its repair loop (experience produces mentors who produce experience) runs an order of magnitude slower than its decay loop. L5, the measurement–learning loop:

institutions fund the science that serves what they measure and measure what their incentives reward — the self-sealing circle of T6, breakable only by commitments made before the data arrives. Each future's tension table records the state of all five loops in 2046 — running, broken, reversed, or replaced — because the loops are where the futures' twenty years of divergence actually accumulate: small differences in loop direction in 2027 are the entire difference between the worlds of 2046.

2.3 The System as Lived: Four Positions, Present Tense

Before the loops become axes and the axes become worlds, they should be met as people — because the wildfire system's most reliable analytical failure is oversimplification by position: everyone who touches the system sees it from one chair, generalizes the view, and mistakes the other chairs' occupants for obstacles, fools, or villains. The four vignettes that follow are present-tense — June 2026, before the futures diverge — and each is a loop wearing a life. They are built to one standard, the same one that governs every scenario element in this document: each must prompt the consideration of action, not merely furnish texture, and so each ends on the only question that converts empathy into strategy — *what instrument would actually reach this person?* A national approach that cannot answer that question for all four of them is not a strategy. It is an exhortation with a budget.

The homeowner. She and her husband bought the house in Pine Bench eleven years ago — a constructed mountain town, but the arithmetic is anywhere — and they did everything the pamphlets said: the Class A roof after the 2020 scare, the ember-resistant vents, the thirty feet of defensible space she maintains like a second job. The non-renewal notice arrived anyway, in March, because the carrier's model prices the canyon, not the parcel, and her virtue is invisible at the resolution the model sees. The lender requires coverage; the state FAIR plan quoted four times the old premium, then capped enrollment in May. So the house is listed, and the listing has taught her the second lesson: the only offers are cash — a speculator pricing the lot at land value minus risk, and a retired couple with no mortgage and no insurance, buying the hope and self-insuring with optimism. Eleven years of equity is evaporating eighteen months ahead of any flame, repriced by actuarial arithmetic that arrived before any instrument that could have rewarded what she actually did. She is not a statistic of the fire problem; she is a casualty of its sequencing — repricing without mitigation instruments is just loss reallocation — and she will vote, this fall and for the rest of her life, for whoever sounds angriest about it. *The instrument question:* community-scale certification that the model can see, mitigation-conditioned availability of the kind one future's regulators build, a conditioned backstop that holds the mortgage market together while the work scales — anything that connects her parcel's truth to her policy's price. Absent that, her hardened house is the best-built home in a market that no longer exists.

The senator. She represents a western state with three burned towns in two years, she is eight months from re-election, and she is not a fool — she is responsive, which is the duty of the office. Her bill is an emergency supplemental: aircraft, retardant capacity, hiring bonuses, a doubled surge account. It polls at eighty percent, it will pass, and it is real help — this season, which is the unit of time her position is built to see. What her staff briefing cannot make actionable is the asymmetry the system has built around her: the money she can move in her window teaches the system suppression, while the instruments that would actually bend her state's loss curve — code enablement, mitigation funding with multi-year reliability, the pipeline and militia repair — pay off two terms after she is gone, and half of them belong to county governments no senator commands. Her local rationality is the appropriations calendar, and it is as real as the planner's tax base or the carrier's model. *The instrument question* runs in reverse for her — not what reaches her, but what she could reach for: the reformers' obligation is to hand the responsive politician instruments that are simultaneously fundable in her window and compounding beyond it — mitigation parity *is* money, militia repair *is* hiring, and both can be announced in a burned town. If the system cannot produce a bill she can pass this session, her session will be filled by the bill she can — and the futures show, twice, exactly where that compounds.

The researcher. Thirty years of fire history and landscape ecology have made her one of the country's authorities on what these systems need: regime-scale fire restored over decades, reference conditions, landscape resilience — and her work is rigorous, replicated, and right. Her keynote this spring closed the way it has closed for a decade: the system *lacks the will* to think at ecosystem scale. What her scale cannot resolve is the room she is saying it to — a duty officer whose decisions expire in hours, a planner whose horizon is a budget cycle, a senator whose unit of time is a term — actors for whom "restore century-scale process" has no handle, no Tuesday, no line item. Her local rationality is genuine: tenure, journals, and professional identity all reward the long view, and the translation work that would convert her findings into decision-shaped instruments is uncredited in every system she answers to. The gap is symmetric and closing from neither side — the nation defunds her enterprise in the same cycle it most needs her evidence, while the evidence arrives without operational handles — and the futures are blunt about the consequence: in every world where knowledge matters, someone built the bridge between her timescale and theirs, and in no world did being right substitute for it. *The instrument question:* co-produced metrics, embedded science capacity, research commissioned in the shape of the decisions it must inform — the translation infrastructure that makes her scale legible at theirs, and theirs at hers.

The county planner. He grew up in Harlan County — constructed, like Pine Bench, and like it, anywhere — left when the mill closed, and came back because somebody had to. The application on his desk this morning is eighty-eight homes on the bench above town, and he knows the ground: the fuels run unbroken to the ridge, and the access is one road that

the hazard map has hated for years. He also knows the other numbers, because they are his job too: the county has lost nine percent of its population in a decade, the school district consolidates next year without new enrollment, and the subdivision is thirty-four million dollars of assessed value, two years of construction payroll, and forty families with kids. The hardening standards he himself drafted in 2024 add roughly forty thousand dollars a unit, and the developer's pro forma dies at that number — relaxed standards or no project, and the developer is not bluffing, because the margin is real. So he writes the staff report the way it has to be written, the commission votes five to nothing, and everyone in the room has done their job: decline is certain on his spreadsheet and fire is probabilistic on his map, and no one has ever answered the question he asks the exhortations that arrive in his inbox — *what does this county die of first?* Twenty years from now, the bench above town is one of this document's statistics: protected in the future where a parity fund paid his forty-thousand-dollar delta; the corridor's cousin in the future that promised the fleet would come; the holdout exhibit across the river from the compact; conceded, eventually, in the future that deferred everything. He is L2's engine, and he is not its villain — he is the most rational actor in this Part. *The instrument question:* nothing rhetorical reaches him, because he has heard all of it; what reaches him is arithmetic — an instrument that pays the hardening delta, a cost-share that prices the approval honestly, an insurance signal the developer's lender reads — which is why the compact track's carrots precede its sticks, and why any strategy that begins by calling his county the problem has already lost it. From his chair, the system is the thing that left.

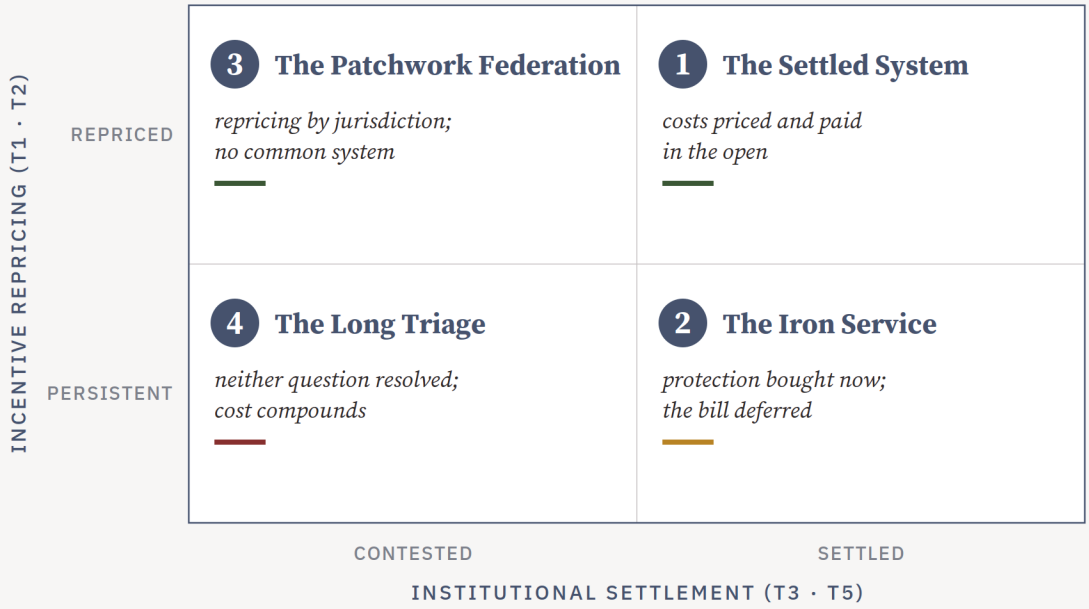
The four never meet, and their decisions compound into the loops all the same: the planner's approvals feed the exposure the homeowner's repricing punishes, her displacement feeds the anger the senator's supplemental answers, the supplemental feeds the suppression bias the researcher's evidence indicts, and the indictment, arriving without handles, feeds nothing at all. None of them can be exhorted out of their position, because each position is load-bearing in a life — which is the vignettes' analytical yield, and the standard the rest of this document is held to: every durable instrument in the four futures is one that some version of these four people could say yes to from inside their own rationality. The futures that work are not the ones where people improve. They are the ones where the instruments arrive.

2.4 The Two Axes

FIGURE 1 · THE TWO AXES

Four futures from two structural questions

The two most differentiating, still-decidable tensions become the scenario axes. Their four combinations name the futures developed in Parts III–VI.



"settlement-versus-contestation diverges everywhere"

Among the six tensions, two stand apart on the method's selection criteria — highest differentiating impact, genuine uncertainty, and decidability by actors in the system — and they become the scenario axes. Axis One: Institutional Settlement (from T3 and T5). Does federal fire governance reach a settled, legitimate, durable form — a structure authorized, funded, and doctrinally complete, whether that form is the consolidation perfected or a federated redesign — against which the alliance of states, tribes, and localities can re-engage with confidence? Or does the structural question remain contested: unauthorized, episodically reorganized, its doctrine provisional and its counterparty reliability discounted by every partner's counsel? The axis deliberately does not encode *which* settlement — Volume Two's fork — because the futures analysis found, and Part VII develops, that by 2046 the settled variants converge in more respects than they differ, while settlement-versus-contestation diverges everywhere. Axis Two: Incentive Repricing (from T1 and T2). Are the system's money signals reformed — risk-retiring work funded with suppression-grade reliability, disaster cost-shares and insurance signals moving consequence back toward the decisions that create it — so that

L1 and L2 begin to slow and reverse? Or does the suppression-and-sprawl architecture persist, with the loops compounding at interest? The remaining tensions — capacity (T4) and knowledge (T6) — are treated as consequential rather than axial: their trajectories follow substantially from the axes, in directions each future works out, and treating them as outputs is itself an analytical claim the red-teamed reader should test.

The axes' four combinations name the futures. Settled and repriced: The Settled System (Part III) — the system that learned, slowly and at cost. Settled and unrepriced: The Iron Service (Part IV) — institutional excellence pointed at the wrong loop. Contested and repriced: The Patchwork Federation (Part V) — adaptation without a center, brilliant and uneven. Contested and unrepriced: The Long Triage (Part VI) — the default future, the one requiring no decisions at all. Table 2–1 states the architecture.

	Incentives REPRICED (T1/T2 reformed)	**Incentives PERSIST (suppression–sprawl loop runs)**
Governance SETTLED (T3/T5 resolved into a legitimate, durable form)	**Future One — The Settled System.** Authority rejoined to land, money retaught, federation re-engaged. The system runs hard to stay in place against a rising regime — and mostly does.	**Future Two — The Iron Service.** A funded, unified, technologically formidable national fire service perfects response while L1 and L2 compound. Brilliant, brittle, and waiting.
Governance CONTESTED (structural question unresolved; federal counterparty discounted)	**Future Three — The Patchwork Federation.** States, tribes, and markets reprice risk without a settled federal core. Resilience becomes geography: where you live determines which system protects you.	**Future Four — The Long Triage.** Drift compounds. Emergency federalism, privatized surge, unmanaged retreat. The system that results when every decision is deferred — the path of least resistance, fully expressed.

2.5 What Was Deliberately Not Made an Axis

Three candidate axes were considered and set aside, and the reasoning is part of the method's audit trail. *The fire regime's severity* is the largest uncertainty in the system's environment and was excluded as an axis precisely because no actor in the system decides it: futures differentiated by weather teach fatalism, and futures differentiated by choices teach planning. The regime is instead held to a common median pathway across all four futures — the same drought cycles, the same hard seasons of 2031, 2037, and 2044, the same secular intensification — with a harsher-than-median pathway applied as a stress test in Section 7.7, where the question becomes which futures degrade gracefully and which catastrophically. *Technology* — detection constellations, autonomous aviation, decision-support systems maturing through the 2030s on industry trajectories — was excluded because the analysis found it amplifies rather than differentiates: the same autonomous airtanker fleet serves The Settled System's prescribed-fire windows, The Iron Service's suppression maximalism, The Patchwork Federation's wealthy members, and The Long Triage's contractors, and each future works out what its institutions make of

common tools. *Political volatility* — the oscillation of administrations and congresses — was excluded as an axis and incorporated as weather: every future contains political turnover on historical cadence; the futures differ in whether the system's arrangements are built to survive it, which is a property of the arrangements, not of the politics. Each exclusion is contestable, and a reader who rebuilds the matrix on different axes is using this document exactly as intended.

2.6 The Common Pathway: What All Four Futures Share

Because the futures are differentiated by choices, what they share must be stated precisely — it is the controlled half of the experiment. All four run on the same regime pathway: the median of current projection, which is itself severe — secular intensification of fire weather, the year-round fire year consolidating, and three benchmark hard seasons placed at 2031, 2037, and 2044, each a multi-region siege exceeding the 2025 benchmark in simultaneity and the last exceeding it in every dimension. All four receive the same technology on the same industry clock: operational detection constellations by the early 2030s, autonomous aerial suppression at scale by the mid-2030s, decision-support systems whose competence rises throughout — and whose institutional meaning each future determines for itself, the analysis's standing demonstration that tools amplify institutions rather than redeem them. All four contain political turnover on historical cadence, economic cycles, and the continued growth of the West's population. And all four begin from the same June 2026: the as-built record of Volume One, the bridge guidance, the unissued instruments, the season already underway. The futures' first divergences are measured in signatures, not in years — which documents the analysis's claim that the present is the experiment's only variable.

2.7 Reading the Futures

Each future occupies one Part and follows one structure: the world of 2046 as a standing portrait; the history 2026–2046 in four periods, written as retrospect; the state of the six tensions and five loops in that world, tabled; ground truth — vignettes at the level where the system is actually experienced; the accounting — who gained, who lost, who pays; the signposts that would have indicated, early, that this future was forming; and what the leaders of that 2046 wish the leaders of 2026 had done. The futures are presented in the order of the matrix, not of probability — this analysis assigns no probabilities, on principle: probability assignment is where futures work quietly collapses back into single-point forecasting, and the moment a leadership team starts weighting the futures is the moment it has stopped planning against all of them. One exception to neutrality is conceded now rather than discovered later: Future Four requires no decisions, only deferrals — which makes it, at every moment including this one, the default. The other

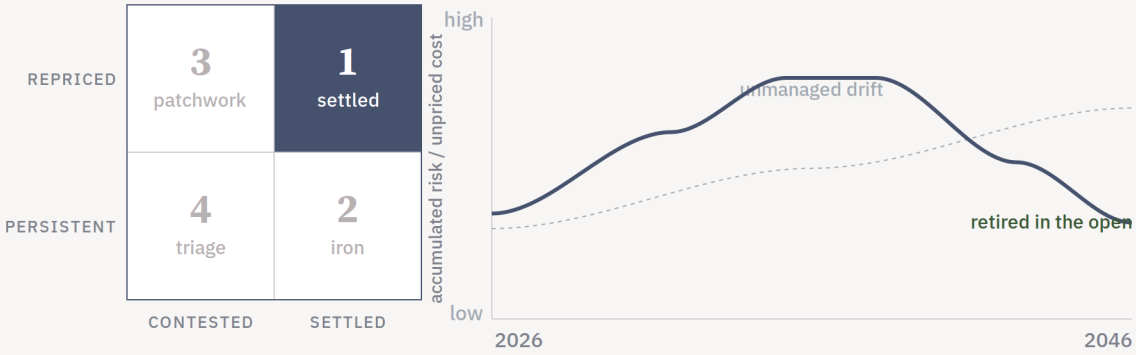
three must be chosen. That asymmetry is not a probability; it is a property of drift, and it is the single most important fact in this document.

Part III — Future One: The Settled System

FIGURE 2 · FUTURE ONE

The Settled System

Settlement settled · incentives repriced — the one future that pays its costs in the open.



"Its costs are priced and argued in the open."

Settled governance, repriced incentives — the system that learned, slowly and at cost · 2046

3.1 The World of 2046

The fires of 2046 are larger than the fires of 2026 — the regime saw to that — and the country has, for the most part, stopped experiencing them as disasters. Annual burned area runs half again above the 2020s average; structure losses run at a quarter of the 2025 benchmark and falling. The decoupling is the system's signature achievement and its hardest-won: roughly forty million acres a year of intentional fire — prescribed, cultural, and managed lightning fire combined — move across landscapes under a doctrine that treats the question "should this burn" as a land management decision with a fire attached, made by officials qualified in both. The U.S. Wildland Fire Service exists, statutory since 2028, and is a different institution than its founders projected: its concurrence doctrine — the binding mechanism by which land objectives enter every strategic fire decision — began as the contested compromise of the authorization fight and matured into the service's professional identity, the way unified command matured from FIRESCOPE's grudging compromise into the fire service's pride. Veterans of the 2020s find the operational tempo strange: initial attack is faster than ever — detection constellations and

autonomous aviation made the first hour nearly automatic — and yet the system feels slower, because the consequential decisions moved upstream, into the burn plans, the parcel decisions, and the annual negotiations where the alliance does its real work.

The alliance held, and changed. The Western Fire Compact — governors and tribal nations first, the federal system joining rather than convening — carries the exposure architecture: disaster cost-shares stepped against adopted hazard codes since 2033, a mitigation funding stream with suppression-grade reliability since 2031, insurance re-entry negotiated region by region as the mitigation record accumulated. None of it was clean. The cost-share glide produced a decade of litigation and two genuine hardship crises; “managed retreat” remains the system’s ugliest politics, conducted parcel by parcel through buyouts, non-renewals, and the quiet arithmetic of post-fire rebuilding rules; smoke is the chronic grievance — forty million intentional acres breathe, and the airshed wars of the 2030s produced a regulatory architecture nobody loves. The system of 2046 is not a solved system. It is a system that runs hard to stay in place against a load that is still rising — and mostly does, which its own elders, formed in the 2020s, regard as the most improbable sentence of their careers.

Daily life inside the system has a texture the 2020s would not predict. Fire is civic: the burn calendar is published like a school calendar, smoke days are managed like snow days, and the autumn community burns — part operation, part festival, part obligation — are how interface towns perform their membership in the compact, with the insurance differential as the sermon nobody needs preached. The profession is larger and stranger than it was: half the qualification cards in the system now carry a land discipline alongside the fire one, the tribal training exchanges are oversubscribed three seasons out, and the fastest-growing job classification of the 2040s — community fire planner, the parcel-level negotiators of the retreat and hardening programs — did not exist in 2026. Politics remain genuinely hard: the smoke equity boards, the buyout queues, and the annual compact assessment fights are real fights. What changed is their grammar — they are arguments about how to share a managed burden, conducted by parties who no longer dispute that managing it is possible, which the 2020s would have recognized as the entire war.

3.2 How It Happened

2026–2029: The Repair Window

The seam doctrine and review process issued in late 2026 — imperfect, resented from both directions, revised twice — and the 2027 season tested them: the Verde Gap Fire, a constructed multi-bureau lightning fire with a trust-timber flank, produced the first documented land-concurrence dispute, escalated on the doctrine’s clock, and settled

inside six hours — a minor operational event that became the authorization debate's decisive exhibit, because it proved the mechanism could bind under load. The feasibility study, its criteria pre-registered in 2026 over considerable resistance, reported in 2028: consolidation's support-function gains real, its strategic-governance seam real, the concurrence record promising. Congress authorized the USWFS in 2028 with the concurrence mechanism in statute, the review process codified, the trust doctrine — co-produced with tribal governments over two years — attached, and the Forest Service transfer deferred to its own evidence. The militia-repair instruments issued in 2027 and were, at the time, dismissed as personnel housekeeping; they were the decade's sleeper decision.

2030–2034: The Compact Decade

The mitigation-parity fund — the carrot — passed in 2031 on the votes of the hard season's smoke; the cost-share glide — the stick — followed in 2033, a published ten-year step-down that converted county land-use politics from abstract to actuarial. The 2031 fire siege, common to all four futures, struck this one with its agreements stabilized and its doctrine two seasons old: losses were severe, the reviews were credible, and the system's learning machinery — NR-2's grandchildren — converted the season into the compact's political fuel rather than into recrimination. Insurance regulators, watching the mitigation record accrue, began conditional re-entry pilots in 2032. Tribal fire programs, funded as national capability under the 2028 statute, doubled; by 2034 the cultural-fire training exchanges were the system's largest source of new burn-qualified personnel, and the fact had stopped being remarked upon.

2035–2039: Running to Stay in Place

The hard season of 2037 — the regime's mid-course test — burned eleven million acres in this future and took under two thousand structures: the first season the decoupling was undeniable in the national data, and the first in which a major metro's survival was credibly attributed to twenty years of accumulated parcel-level work rather than to response. The airshed wars peaked: the 2036 Smoke Equity Act's regional prescribed-fire allowances were the compromise that let forty million intentional acres coexist with public health law, and its negotiation nearly broke the compact twice. The dual-fluency pipeline — the 2027 instruments compounding — produced its first cohort of unit leaders formed equally in fire and land; the qualification system absorbed autonomous aviation without fracturing, because NWCG's consensus machinery, protected in 2026, still owned the standards.

2040–2046: The System That Maintains Itself

By the 2040s the arguments had changed subject: not whether to burn but how much smoke which airshed absorbs; not whether to retreat but who pays for the next tranche; not whether the concurrence doctrine binds but whether it has grown too procedurally heavy. The 2044 hard season — the common pathway's worst — was managed as weather rather than as crisis. The system's elders worry publicly about success: a generation that has never seen the loops run forward, a compact whose discipline depends on memory of the 2020s, and a regime whose ceiling keeps rising. The maintenance of a repaired system, they have discovered, is its own permanent campaign.

3.3 The Tensions and Loops in 2046

Tension	State in 2046	Loop Behavior
T1 Exposure	Repriced. Cost-share glide complete; codes near-universal in hazard zones; new interface growth slowed to a trickle; retreat proceeding, contested, parcel by parcel.	L2 reversed: development now carries its own risk price. Runs in reverse slowly and politically expensively.
T2 Regime	Retaught. Mitigation funded at suppression-grade reliability since 2031; intentional fire at ~40M ac/yr; fuels debt declining in treated regions, stable elsewhere.	L1 slowed and locally reversed; suppression still grows in absolute terms because the regime does.
T3 Governance	Rejoined by mechanism. Concurrence doctrine statutory, professionally internalized, procedurally heavy; the 2040s argument is about its weight, not its existence.	Decision seams cost minutes, not hours; disputes documented, reviewed, and fed to doctrine.
T4 Capacity	Rebuilt. Dual-fluency pipeline producing; militia restored as career asset; attrition normal; change-absorption husbanded as policy.	L4 repaired — the slow loop ran for twenty years because 2027 started it.
T5 Federation	Re-engaged, rebalanced. Compact is the system's center of gravity; federal role is largest member, not principal; trust doctrine co-produced and litigated only twice.	L3 running forward; reliability demonstrated through two hard seasons.
T6 Knowledge	Rebuilt. Pre-registered evaluation became permanent practice; consequence metrics replaced acreage; research re-funded 2029 as the study's own dependency.	L5 broken open: the system measures what it manages and manages what it measures.

3.4 Ground Truth

An operations section chief, August 2046, on a 60,000-acre managed lightning fire. Her decision space was drawn before the fire started: the unit's fire management plan, the

season's compact allocations, the airshed allowance, and the concurrence record all live in the decision environment her predecessors would not recognize. The autonomous fleet holds the two flanks the plan says cannot burn this year; her crews work the third like it is 1996, because some work does not change. What has changed is the meeting: the land deputy beside her holds the concurrence, the tribal burn boss across the table holds half the qualified workforce, and the decision they will sign tonight — let the fourth flank run another week into the treatment mosaic — would have been a career-ending act of nerve in 2026 and is, in 2046, a Tuesday. *A county supervisor, the same week.* Her county fought the cost-share glide for six years, lost, adapted, and now markets its compliance: the insurance differential between her county and the holdout county across the river is the largest line in both counties' economic-development pitches, and she has stopped pretending she would undo it.

A training exchange coordinator, October 2046, on a four-thousand-acre cultural burn. The exchange is the system's workforce engine and looks nothing like an academy: eleven agencies, three tribal nations, two state crews, and a county fire district, burning together under a tribal burn boss whose qualification card is honored from Florida to British Columbia because the consensus machinery survived to crosswalk it. Half her students are mid-career converts — suppression-formed professionals acquiring the second fluency the pipeline now requires for command — and the other half are twenty-two-year-olds for whom lighting fire is simply what the profession is, the way holding it was for their grandparents. Her quiet metric is neither acres nor certifications: it is that the unit's land deputy and its fire deputy came up through this same exchange nine years apart, argue like siblings, and sign the same decisions — which is, she has come to understand, what the entire architecture was for.

3.5 The Accounting

Who gained: the people who did not lose homes that statistically should have burned — the future's largest constituency and, characteristically, its least aware; tribal nations, whose fire programs moved from margin to load-bearing center; the workforce, whose profession acquired a second fluency and a sane tempo; the insurance market, which re-entered profitably. Who lost: interface landowners on the wrong side of the retreat arithmetic, whose grievance is legitimate and permanent; smoke-burdened airsheds, who carry the program's health externality and know it; the suppression-industrial constituency of the 2020s, whose growth curve flattened; and every official who spent career capital on the compact's ugly middle years and retired before the vindication. Who pays: everyone, visibly — which is the design. The Settled System's deepest characteristic is that its costs are priced and argued in the open, which makes it the noisiest of the four futures and the only one whose arguments are about the right things.

3.6 Implications by Actor

For federal executives, the Settled System's lesson is that the concurrence mechanism's strength was set in the deliberate window before the institution's culture hardened — and that maintaining a settled system is a standing campaign: the doctrine's procedural weight, the compact's federal dues, and the smoke architecture all require annual defense long after their authors retire. For state leadership, the compact is power and obligation in equal measure: the states that convened it own the system's center of gravity and carry its hardest politics — the cost-share glide, the retreat arithmetic — in their own legislatures, which is the price of being principal rather than client. For tribal nations, the future validates the long bet on co-production: the trust doctrine negotiated slowly in 2026–2028 is the reason 2046's fire economy runs through tribal programs rather than around them — and the standing risk is success-driven tokenization, the system mistaking the programs' capability for infinite capacity. For county and local government, the actuarial conversion of land-use politics is permanent: the hazard map is the general plan's first chapter, the insurance differential is the economic-development pitch, and the supervisors who fought the glide govern jurisdictions that now market their compliance. For operational leaders, the profession's center moved upstream — the consequential decisions live in burn plans, concurrence records, and annual negotiations, and the command track requires the dual fluency the 2027 instruments restarted; the IC's art survives intact, exercised inside a decision space drawn by people who did the boring work two decades earlier. For the private sector, mitigation became the market: the hardening trades, the parcel-assessment industry, and the re-entered carriers all monetize the repricing — the future's reminder that incentive reform does not suppress an economy; it redirects one.

3.7 Signposts, 2026–2031

This future announces itself early through instruments, not outcomes: seam doctrine issued before the 2026 peak and *revised afterward* (revision is the signal — it means the doctrine is being used); a feasibility study with criteria published before the season ends; a first concurrence dispute that settles on the doctrine's clock and enters the record; militia and qualification instruments issued and — the harder signal — funded; a mitigation-parity bill introduced by a governors' coalition rather than a federal agency; tribal trust-doctrine talks that run long because they are real; and insurance pilots conditioned on mitigation records by 2031. The composite early signature: boring instruments, contested and completed. This future is built almost entirely out of paperwork that 2026 found tedious.

3.8 What 2046 Wishes 2026 Had Done

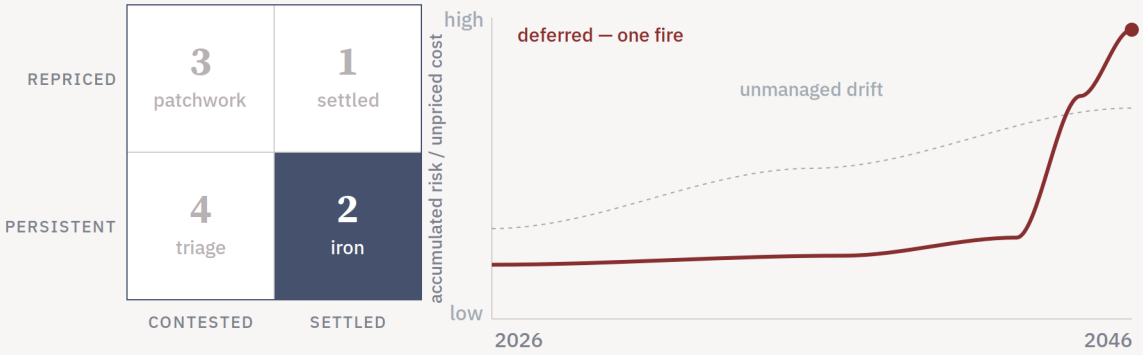
Less than the reader expects — in this future, 2026 largely did it — which is itself the finding: the Settled System's elders identify no heroic decision in their history, only the early, unglamorous completion of the lowest-regret package and the discipline of deciding the structural fork once, on evidence. Their two regrets are instructive. They wish the smoke architecture had been negotiated in the 2020s, alongside the compact, instead of after the airsheds were already angry — the program's health externality was foreseeable and was deferred because it was nobody's crisis yet. And they wish the retreat instruments had been designed before the cost-share glide forced improvisation — the glide created the pressure, but the receiving architecture for the people it moved was built late, meanly, and in litigation. Both regrets share a shape: the Settled System solved the problems it pre-registered and paid double for the ones it could see but did not name. Even the best future on the board punished deferral; it just survived it.

Part IV — Future Two: The Iron Service

FIGURE 3 · FUTURE TWO

The Iron Service

Settlement settled · incentives persistent — protection bought now, the bill deferred.



"Its books will be balanced by a fire that has not happened yet."

Settled governance, unrepriced incentives — institutional excellence pointed at the wrong loop · 2046

4.1 The World of 2046

The United States Wildland Fire Service of 2046 is, by any operational measure, the most formidable fire institution ever built. Statutory since 2027, funded without serious challenge since the catastrophic season that authorized it, it fields the world's largest autonomous aviation fleet, a detection constellation that times national ignition awareness in seconds, and an initial-attack record — ninety-nine point two percent of ignitions held under a hundred acres — that its recruiting materials state without needing to embellish. Fire is, institutionally, a homeland-security function: the Service absorbed the Forest Service program in 2029, the ESF-4 mission in 2031, and a cultural position somewhere between the Coast Guard and the Border Patrol — uniformed, trusted, funded, and politically untouchable. The public loves it. The public is also, by 2046, living inside the largest deferred catastrophe in American risk management, and the Service's own analysts — it has superb analysts — publish the curve annually: fuels accumulating on the ninety-nine percent of acres that no longer burn, interface growth compounding under the protection promise, and a breakthrough-fire loss exceedance curve that bends upward

every year the system succeeds. The Iron Service is what happens when an institution wins its argument completely: the consolidation was perfected, the suppression presumption matured from transition posture into identity, and the loops — L1 and L2 — were not so much ignored as professionally serviced.

What the operational triumph cost is visible mainly at the edges, which is where this future keeps its losses. The land missions hollowed: prescribed fire runs at a third of its 2026 level — every escape is a national story about the beloved Service's one failure mode, so the windows simply stopped being used — and the parks, refuges, and forests are managed, in practice, as protection districts with scenery. The concurrence doctrine exists in statute and is exercised the way ceremonial authorities are: the land deputy signs, the strategy was never in doubt, and the officials who once contested it have learned what contesting costs. Tribal nations exited where they could — the 638 expansion of the 2030s was less renaissance than refuge — and the trust-fire litigation docket is the system's longest-running embarrassment. Insurance never repriced; it nationalized: the federal wildfire backstop of 2035, improvised after the carriers' final withdrawal, completed L2's architecture — development risk now flows directly to the Treasury, which guarantees the protection that invites the development. The Iron Service's strategists know all of this. Their position, defensible and chilling, is that the institution is optimized for the world its political masters actually fund — and that when the breakthrough comes, the country will respond by funding more of it.

The texture of this future is confidence — earned, broadcast, and structurally misplaced. The Service's recruiting runs the country's best advertising; its academy turns away four applicants for every seat; its rescue footage is a genre. Interface life is good and getting denser: the protected corridors build upward and outward under the fleet's umbrella, the backstop's premiums are politically suppressed below any actuarial floor, and a generation of homeowners has never met a fire their Service did not stop — the protection promise functioning, in the economists' dry phrase, as the largest unpriced subsidy in American land use. Inside the institution, the texture is quieter: the analysts' shop publishes its curve, the strategy directorate war-games the breakthrough annually, and the Service's best officers carry the particular loneliness of professionals who can see their institution's trap with perfect clarity and have no role in which seeing it is actionable. The public conversation about fire, meanwhile, has gone the way of conversations about levees and dams in the high confidence of other eras — which is to say it has largely stopped, and stops are how this future stores its risk.

4.2 How It Happened

2026–2029: Authorization by Catastrophe

The seam doctrine of 2026 issued thin and was overtaken: the 2027 season — the common pathway's first hard test, in this future striking before the doctrine had a record — produced the constructed Cascade Front fires, a two-state conflagration whose response was genuinely heroic and whose review, conducted in the vacuum NR-2 was meant to fill, became a referendum that the unified service won. Congress authorized the USWFS in 2027 in the season's ashes — funded magnificently, its concurrence provisions drafted in a week and weakened in conference, the Forest Service transfer bundled in over the study's silence. The feasibility study reported in 2028 to a decided question and was filed. The militia instruments were never issued; the pipeline question was answered with money — recruiting, pay, and academy capacity — which worked, for the workforce the Service wanted.

2030–2034: The Build

The Service built brilliantly: the autonomous fleet operational by 2032, the constellation by 2033, initial-attack metrics climbing annually, and the 2031 hard season — eleven million acres in Future One — held to four million here, a triumph the Service has never let the country forget. Prescribed fire's decline began as risk management and became culture: the 2032 Mariposa escape — six structures, one fatality, three weeks of coverage — ended the program's growth permanently. The states' fire organizations, rational as ever, restructured as junior partners and contractors of the dominant federal system; NWCG's consensus machinery was absorbed into Service standards directorates in 2033, and qualification portability improved even as its legitimacy quietly drained. Interface growth, fully insured by the coming backstop and fully protected by the visible fleet, accelerated through the decade — the protection promise functioning as the development subsidy it always was.

2035–2039: The Backstop and the Curve

The carriers finished leaving in 2034; the federal backstop arrived in 2035, sold as temporary, structured as permanent. The 2037 hard season was the Service's finest hour — simultaneous sieges in three geographic areas, the surge machine flawless, losses a fraction of 2025's — and its most expensive lesson declined: the season's two breakthrough fires, where wind beat the fleet, each destroyed more structures than any fire of the 2020s, because twenty years of protected fuels and subsidized growth had loaded the board. The Service's analysts published the exceedance curve; the appropriators funded eleven more airtankers. The land agencies' residual fire fluency —

the militia's last cohort — retired out by 2038, and with it the system's institutional memory that fire was ever anything but the enemy.

2040–2046: Brilliant, Brittle, Waiting

The 2044 season — the common pathway's worst — delivered the breakthrough the curve had promised: the constructed Front Range fire of September 2044, a wind event through a fully protected, fully developed corridor, twenty-two thousand structures in four days, the fleet grounded by the same wind that drove the fire — the precise dynamics of January 2025, at three times the scale, under the best response institution ever fielded. The national reaction validated the Service's strategists: a thirty percent budget increase, a new fleet generation, and a commission whose recommendations — reprice exposure, restore intentional fire, rebuild the land interface — read, several commissioners noted, like a document from 2026. In 2046 the Service is bigger than ever, the curve still bends upward, and the institution's own best officers are its quietest pessimists: they command the strongest response system on earth and they have read enough history to know what it means to be perfectly prepared for the last war.

4.3 The Tensions and Loops in 2046

Tension	State in 2046	Loop Behavior
T1 Exposure	Inverted into subsidy. Backstop nationalizes risk; protection promise accelerates growth; exposure at historic maximum and compounding.	L2 running at full speed, federally guaranteed.
T2 Regime	Suppression-maximal. Intentional fire at one-third 2026 levels; fuels debt at historic maximum; "the curve" published annually, funded never.	L1 running at full speed, professionally serviced.
T3 Governance	Settled ceremonially. Concurrence statutory and hollow; land missions administered as protection districts; trust litigation chronic.	Seam closed by capitulation — the cheapest closure and the costliest.
T4 Capacity	Strong and narrow. Recruiting solved by money and prestige; dual fluency extinct; the Service produces superb responders and no land judgment.	L4 repaired for one trade and severed for the other.
T5 Federation	Hierarchy achieved. States as junior partners; tribes in managed exit; consensus machinery absorbed; the alliance replaced by a market with one buyer.	L3 irrelevant: engagement compelled by dominance, not earned by reliability.
T6 Knowledge	Excellent and captive. World-class analytics measuring response; the exceedance curve documented, published, and structurally unactionable.	L5 sealed at the top: the system sees its own trap perfectly and funds the trap.

4.4 Ground Truth

A USWFS strike leader, July 2046. He is twenty-nine, superbly trained, third-generation proud, and he has never seen a fire allowed to do anything. His platform feeds him the constellation's picture, the fleet works above him with a precision that still moves him, and the ignition his module catches at four acres tonight — in a drainage his grandmother's generation would have burned on purpose every decade — will be his two hundredth consecutive success in a landscape that is, his own Service's analysts privately calculate, eleven years past its last survivable burn window. He does not know that. It is not that the Service hides it; it is that there is no role in his profession in which the fact is actionable. *A refuge manager, the same month.* Her habitat objectives require fire her protection district will not authorize; her thirty-year-old compatibility determinations cite a program that no longer exists; and her annual report's habitat-condition trend line has declined for so long that the regional office preprints the explanation. She is the land mission's residual conscience, she is sixty-one, and her position is scheduled for conversion to a protection captaincy when she retires.

A Service analyst, February 2046, before the appropriations subcommittee. Her exceedance-curve briefing is the eleventh annual edition and has become a Washington ritual with fixed roles: she presents the curve — honestly, with this year's 2044 datapoint validating the model to three decimal places — the members commend the Service's analytical candor, and the markup funds the fleet. She is the best-resourced analyst in the federal government and the least consequential; her shop's work is impeccable and structurally unactionable, because every instrument that would bend her curve belongs to committees, agencies, and governments that do not attend this hearing. Years ago she stopped recommending and started documenting — the distinction her predecessor taught her, on his way out, as the job's one survivable posture. Her private model has a second curve nobody requests: the date by which bending the first one stops being possible. It is not a far date. She presents on the fourth Tuesday of February.

4.5 The Accounting

Who gained: the interface's twenty-year development boom and everyone whose equity rode it; the Service's workforce, the profession's best-compensated and most-honored generation; the technology and aviation sectors, for whom fire became the durable market defense never quite was; and the political class, which purchased two decades of visible protection at the price of an invisible curve. Who lost: the land missions and the statutes behind them, hollowed without ever being repealed; tribal nations, whose exit preserved their fire culture at the cost of the system's; the prescribed-fire and land-management professions, extinct as career paths; and the residents of the 2044 corridor, who paid the

curve's first installment. Who pays: the Treasury, continuously and invisibly, through the backstop and the fleet; and the future, through the only mechanism this future never repriced — the next breakthrough, already accumulating on the protected acres. The Iron Service's accounting is the inverse of the Settled System's: its benefits are visible and celebrated, its costs deferred and compounding, and its books will be balanced by a fire that has not happened yet.

4.6 Implications by Actor

For federal executives, the Iron Service is the warning that winning the argument completely is its own hazard: the institution inherited every authority and resource it sought, and with them sole ownership of a curve no response capability can bend — the executive's 2046 portfolio is the management of a deferred catastrophe it is funded only to meet, not to prevent. For the Service's own officer corps, the future is professionally golden and morally narrow: the best-compensated, best-equipped, most-honored generation in fire history, formed entirely in one trade, commanding a system whose own analysts publish its trap annually — the thoughtful officer's career problem is that there is no promotable role in which the trap is actionable. For state leadership, junior partnership is comfortable and corrosive: the federal system carries the load and the cost, state fire organizations restructure as contractors and clients, and the capabilities a state would need to chart its own course — the Patchwork's nerve — atrophy precisely because the dominant partner performs. For tribal nations, the managed exit preserved fire culture at the price of influence: the 638 programs of this future are sanctuaries rather than engines, and the trust-litigation docket is the long bill for a doctrine drafted in a week. For county and local government, the protection promise is the era's development subsidy — growth approved under the fleet's implicit guarantee, risk capitalized into two decades of land prices — and the 2044 corridor is the demonstration of what the subsidy was storing. For the private sector, the future splits: aviation and technology prosper on the fleet's appetite; the carriers exit and the mitigation trades never scale, because the backstop and the protection promise priced their products out of the market the way subsidies always do.

4.7 Signposts, 2026–2031

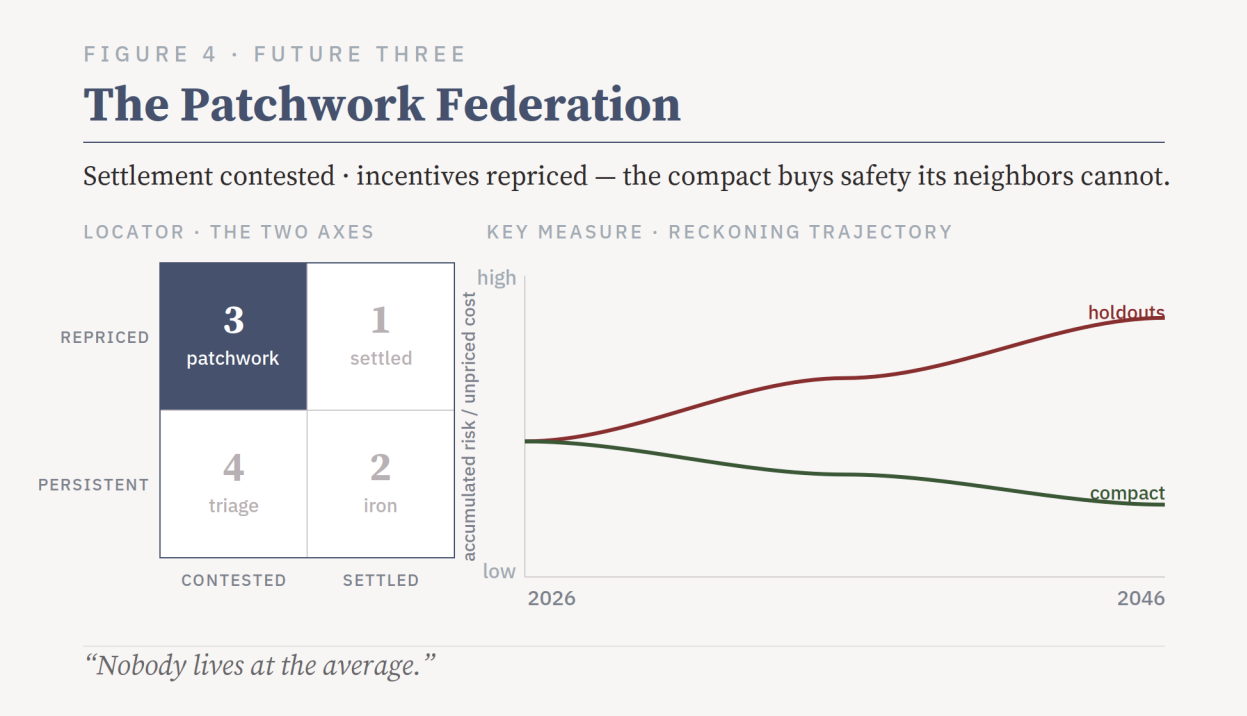
Early signature: settlement by acclamation rather than by evidence. Watch for authorization arriving in a catastrophic season's emotional window with concurrence provisions weakened in conference; the feasibility study reporting to a decided question; the Forest Service transfer bundled rather than evidenced; militia and qualification instruments unissued while recruiting budgets soar; prescribed-fire accomplishment declining year over year with each decline individually defensible; a first high-profile

escape ending program growth rather than producing program reform; consensus standards bodies absorbed into directorates; and — the economic tell — interface construction accelerating in the very years the carriers withdraw, because the protection promise is being capitalized into land prices. The composite signal: every operational metric improving while every land and incentive metric degrades, and the institution celebrated precisely for the combination.

4.8 What 2046 Wishes 2026 Had Done

The Iron Service's reflective officers — and it has many; excellence attracts them — locate the divergence with precision, because their analysts have run the counterfactual. Not the authorization: they defend the consolidation and are entitled to. Three smaller things. They wish the concurrence mechanism had been drafted strong and early — in the deliberate window of 2026, not the emotional window of 2027 — because a binding mechanism installed before the institution's culture set would have been internalized the way Future One internalized it, and a hollow one installed during a crisis became hollow forever. They wish someone had protected the prescribed-fire program from the Service's own success in its first decade — a statutory floor, an escape-tolerant review doctrine, anything that made the program's defenders something other than the institution's least promotable officers. And they wish the backstop of 2035 had been the repricing instrument it could have been — conditioned, graduated, signal-bearing — instead of the blank guarantee the emergency demanded; the carriers' withdrawal was the system's last natural price signal, and the future that silenced it bought the curve. Their summary is one sentence, delivered without bitterness: we were given every resource except a reason to use them differently.

Part V — Future Three: The Patchwork Federation



Contested governance, repriced incentives — adaptation without a center · 2046

5.1 The World of 2046

Ask where the American wildfire system of 2046 is strong and the answer is a map, not a sentence. The federal structural question was never settled: the authorization failed in 2028, the partial rollback of 2030 unwound half of it, the counter-reform of 2034 rebuilt a third, and the institution that remains — a federal wildland fire agency that has carried four names in twenty years — functions, by exhausted consensus, as a support service: aviation, logistics, predictive services, and protection of the federal estate, its strategic pretensions abandoned the way institutions abandon things, by attrition of the people who cared. Into the vacuum moved everyone else. The Western Fire Compact — eleven states and forty tribal nations by 2046 — operates a shared aviation fleet, a unified qualification regime, and the continent's most sophisticated exposure architecture: the repricing revolution happened here, driven not by Congress but by insurance regulators and state treasurers who concluded in the early 2030s that the federal system was not coming to save their balance sheets. Where the compact runs, the future resembles the Settled System: intentional fire at scale, codes with teeth, consequence decoupling from acreage. Where it does not — the compact-adjacent holdout states, the federal-land-heavy

interior, the under-resourced rural Southeast outside the legacy burning culture — the future resembles the Long Triage. Resilience in 2046 is geography: the question “how protected are you” is answered by your address, and the gradient between adjacent jurisdictions can be the difference between an insurance market and a buyout program.

The system’s connective tissue — the thing the 2020s called interoperability — is the future’s quiet casualty and its chronic tax. NWCG’s consensus machinery, starved during the federal churn, fractured in 2033; the compact built its own standards regime, the federal rump kept the legacy one, the Southeast runs a third, and the crosswalk industry that arose to translate among them is a permanent two-percent surcharge on every mobilization. National-scale surge still works — the 2037 and 2044 sieges were met, the compact’s machinery brokering what NMAC once did — but it works through negotiation among near-peers, slower at the start and sturdier under strain, and the federal estate is now the system’s weak flank: the public lands, protected by the rump agency on flat budgets, burn bigger and dirtier than any other ownership, exporting smoke and ember into the compact states whose patience funds an increasing share of federal-land protection through reverse cost-share agreements that would have been unthinkable, and insulting, in 2026.

The future’s texture is the texture of borders. Professionals carry multiple credentials and speak in crosswalks; agreements are the system’s real literature, drafted thick and renewed warily; and the era’s characteristic institution is the boundary authority — the joint powers entities, interstate fire districts, and tribal-state co-management compacts that grew up wherever the patchwork’s seams crossed something that mattered. Capital reads the map fluently: employers, carriers, and households price jurisdiction the way earlier generations priced school districts, and the compact’s edge is visible from the air — in roof materials, in defensible space, in where the new construction stops. National identity in fire, the half-century’s casual assumption that a crew from Georgia and a crew from Oregon were one system in different shirts, persists mainly as nostalgia and mutual-aid muscle memory; the 2044 season proved the muscle still works when the negotiating is done, and the negotiating is never done. It is a future of high function and permanent friction — federalism with the costs itemized — and its citizens’ strongest shared conviction is that whatever the old center was, they are not waiting for it again.

5.2 How It Happened

2026–2029: The Fork That Rusted

The lowest-regret package issued partially and late: seam doctrine in 2027, after the season that needed it; the lattice stabilization never formalized, leaving every state’s counsel to price federal counterparty risk at their own discount. The study reported in

2029, late, its criteria contested because never pre-registered, its findings — genuine support-function gains, unresolved governance seam — honest and inert: the 2028 authorization had already failed on the seam's evidence, the 2030 rider unwound the Forest Service integration, and the structural question entered the permanent middle ground where American institutions park what they cannot decide. The states read the signal early. The first compact instruments — a three-state aviation share, a mutual qualification recognition — signed in 2028, drafted explicitly to function with or without a reliable federal partner.

2030–2034: The Regulators' Revolution

The repricing came from the corner the 2020s watched least: insurance commissioners, facing carrier exodus and FAIR-plan insolvency math, imposed the first mitigation-conditioned availability regimes in 2031–2032 — coverage guaranteed where parcel and community standards were met and priced honestly where they were not — and the state legislatures, captive to the same math, followed with code mandates and the compact's mitigation bank. The 2031 hard season struck a system mid-reorganization on its federal flank and mid-construction on its state flank: losses concentrated brutally on federal-interface and holdout-state ground, and the geography of the outcome — visible on one map, argued for a decade — became the compact's recruiting poster. Tribal nations, watching the federal trust interface churn through its third reorganization, compacted out at scale: by 2034 tribally operated programs protected more acres than the BIA rump, and the cultural-fire economy — training, contracting, carbon and watershed credits — was the rural West's unlikeliest growth sector.

2035–2039: Two Systems, One Smoke

The compact matured into quasi-sovereignty: its 2036 qualification regime, its 2037 siege performance — the season met by compact machinery with the federal fleet under compact tasking, a command relationship nobody designed and everybody now defends — and its standing negotiation with the federal rump over the estate's deteriorating fire condition. The federal lands' decline became the system's central grievance: flat budgets, the militia long gone, prescribed fire administratively impossible amid the churn, and every compact state downwind of a public-land fuels debt nobody owned. The reverse cost-share agreements of 2038 — states buying protection and treatment on federal ground — stabilized the flank and inverted a century's assumptions; the constitutional grumbling lasted one season longer than the smoke.

2040–2046: The Map Settles

By the 2040s the patchwork had hardened into structure. The compact's interior is the developed world's best-adapted fire region; the holdouts have become its cautionary tales,

their populations and tax bases draining toward the adapted side of the line; the federal estate functions as a managed liability, treated by its neighbors' money; and the 2044 season — the common pathway's worst — confirmed the geometry: compact losses modest, holdout losses catastrophic, federal-flank losses large and dirty. The 2045 federalization debate — whether to constitutionalize the compact's machinery into a true national system — failed the way the 2028 authorization failed, and for the same reason: the system's strongest members no longer need the center enough to pay its price. The Patchwork Federation works, where it works, brilliantly. It has simply stopped being one system.

5.3 The Tensions and Loops in 2046

Tension	State in 2046	Loop Behavior
T1 Exposure	Repriced — by regulators, unevenly. Compact zone: codes, honest prices, retreat by market. Holdouts: subsidized exposure until the subsidy's collapse.	L2 reversed inside the compact; running unchecked outside it. One loop, two directions, one border.
T2 Regime	Retaught regionally. Compact intentional fire at scale; tribal programs load-bearing; federal estate fuels debt at maximum — the system's exported liability.	L1 reversed on compact and tribal ground; compounding on federal ground.
T3 Governance	Unresolved and routed around. Federal strategic authority abandoned by attrition; compact governance settled and legitimate; the seam relocated to the federal boundary.	Seam costs paid at every federal interface, priced into the reverse cost-shares.
T4 Capacity	Strong, fragmented. Compact and tribal pipelines healthy; federal pipeline broken; three qualification regimes; the crosswalk tax permanent.	L4 repaired regionally; the federal loop never restarted.
T5 Federation	Reconstituted without the center. The alliance re-formed around the compact; the federal system one member among many, and not the largest.	L3 running forward among compact members; the federal rump still paying down two decades of discounted reliability.
T6 Knowledge	Plural. Compact metrics consequence-based and public; federal data thin; no national picture exists — the 2044 season's true accounting took three years to assemble.	L5 broken open regionally, sealed federally; the system learns in fragments.

5.4 Ground Truth

An incident commander, June 2046, on a fire straddling the compact boundary. Her left flank is in the compact: hardened communities, a treatment mosaic her predecessors burned for fifteen years, a county liaison with real authority, and an insurance adjuster

already pre-staging because documented defense work pays claims faster. Her right flank is the holdout state: untreated fuels to the fence line, a subdivision the compact side stopped building in 2033, volunteers without crosswalked quals she cannot legally assign, and a sheriff making evacuation decisions from a twenty-year-old plan. Same fire, same wind, same hour — and tonight's briefing will describe two different incidents, because twenty years of divergent decisions are standing on either side of a section line. She carries three qualification cards and bills four governments. *A federal district fire management officer, the same season.* He is the rump agency's institutional memory — the last on the district who remembers when the strategy was his agency's to make — and his season is administered through the reverse cost-share: the state's money, the compact's standards, the tribe's burn crews, and his signature, which authorizes on federal land work that three sovereigns designed without him. He has decided it is better than the alternative he watched for fifteen years, which was nothing.

A holdout-county assessor, March 2046. Her spreadsheet is the future's quietest instrument: twelve consecutive years of declining assessed value, the parcels nearest the compact line going first — sold by households doing the insurance math, bought by speculators doing different math — the school district's bond capacity following the rolls down, and the county commission still, this spring, tabling the code package that would start the compact's ten-year clock toward re-rating. She has briefed the numbers to four consecutive commissions; the politics never survive the public comment period, where the room's loudest conviction is that the county will not be told how to build by the people across the river. Across the river, her counterpart's rolls have compounded for a decade. The two assessors attend the same regional conference, run the same software, and administer, forty minutes apart, the era's controlled experiment — the one variable being which side of a line drawn in 2031 their voters happened to live on.

5.5 The Accounting

Who gained: the compact's residents, who bought the Settled System's outcomes with state money and regulatory nerve; tribal nations, whose programs became the system's load-bearing center and whose sovereignty the new architecture finally priced correctly; state institutions, which discovered they were never junior partners; and the insurance market, which engineered the repricing Congress would not. Who lost: residents of the holdout states, doubly — unprotected by the compact and unsubsidized after the federal recovery programs tightened; the federal estate and its missions, managed as a neighbor-funded liability; national interoperability, taxed at every boundary forever; and the idea — quaint by 2046 — that an American in a fire-prone landscape could expect roughly the same system regardless of address. Who pays: the holdouts, catastrophically and episodically; the compact, continuously and by choice; and the federal taxpayer, for a rump establishment whose product is mostly the prevention of worse. The Patchwork's

deepest characteristic is that its successes and failures share no jurisdiction: it is the future in which the system's average performance is meaningless, because nobody lives at the average.

5.6 Implications by Actor

For federal executives, the Patchwork's lesson is that relevance is purchased with reliability and nothing else: the rump agency's standing recovered exactly as fast as its signatures started binding again, and the executives who matter in this future are the ones who stopped litigating the center's lost primacy and started being the alliance's most dependable member. For state leadership, sovereignty arrived with invoices: the compact states govern the continent's best-adapted fire region and pay for it — including, through the reverse cost-shares, for the federal estate's stabilization — and the decade's hardest statehouse argument is no longer whether to lead but how long to carry the holdouts' externalities. For tribal nations, this is the future where sovereignty was priced correctly at last: compacted programs protect more ground than the federal remnant, the cultural-fire economy is structural rather than supplemental, and the standing work is managing success — capacity, succession, and the politics of being indispensable to governments that once required consultation reminders. For county and local government, address is destiny: the compact-side county administers an insurance market and a growth plan; the holdout county administers decline — and the assessors' controlled experiment runs in public, which makes local elections the future's real fire policy venue. For operational leaders, the profession fragmented into jurisdictions: three qualification regimes, the crosswalk tax on every mobilization, careers built inside systems rather than across one — and the IC's hardest skill is commanding a boundary fire where her authorities, resources, and even her radio programming change at a section line. For insurers and regulators, this future is theirs: the commissioners who conditioned availability on mitigation executed the repricing Congress would not, proving the market's machinery could do T1's work — unevenly, undemocratically, and effectively, which is the future's standing question about how reform should arrive.

5.7 Signposts, 2026–2031

Early signature: hedging instruments that work. Watch for state compacts drafted with explicit federal-absence clauses; multi-state aviation or qualification agreements signed without federal convening; insurance-commissioner mitigation mandates preceding any federal exposure legislation; tribal 638 expansion accelerating specifically at trust-interface friction points; reverse-flow money — any state paying for work on federal ground; the federal authorization failing or passing in a form its own implementers discount; and lattice agreements renewed annually with shortening terms and thickening

conditions. The composite signal: the system's most capable members investing in architecture that assumes the center will not hold — prudence indistinguishable, in its early years, from prophecy, and functioning as both.

5.8 What 2046 Wishes 2026 Had Done

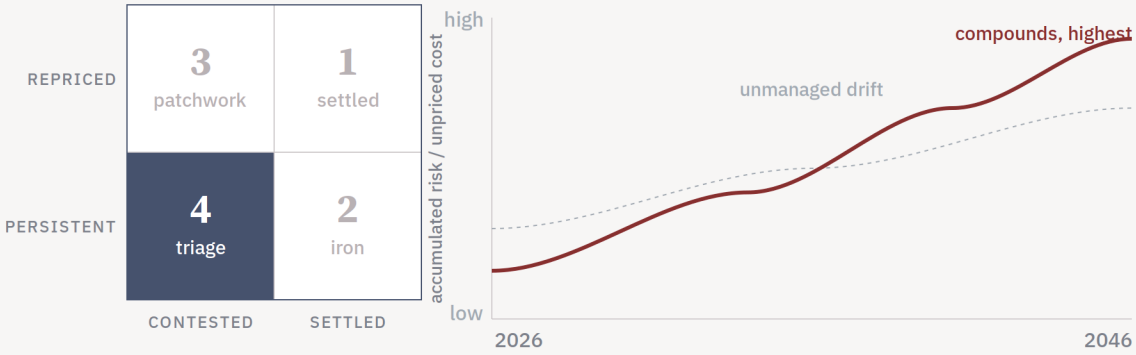
The compact's architects, who are this future's authors and its principal beneficiaries, are unsentimental about the center they outgrew — and unsparing about what its loss cost. They wish 2026 had stabilized the lattice: the single cheapest item in the lowest-regret package, never issued, whose absence forced every state to price federal counterparty risk independently and identically — the compact, they note, was assembled out of those identical conclusions, and a one-page federal reliability commitment in 2026 might have kept the hedging from hardening into architecture. They wish the consensus standards machinery had been protected before it starved — the crosswalk tax is two percent of everything, forever, purchased by nobody's decision. And they wish the federal estate's fire program had been ring-fenced from the structural churn — the fuels debt their states now pay to manage accumulated not from policy but from paralysis, fifteen years in which the institution that owned the land could not execute because it could not stop reorganizing. Their summary inverts the Iron Service's: we were given every reason to act differently, and no partner to act with.

Part VI — Future Four: The Long Triage

FIGURE 5 · FUTURE FOUR

The Long Triage

Settlement contested · incentives persistent — neither question resolved; the cost compounds.



"This future required no decisions — and it is the most expensive one."

Contested governance, unrepriced incentives — the default future: drift, fully expressed · 2046

6.1 The World of 2046

No one decided to build the system of 2046; it is what twenty years of deferral constructed on their own. The federal structural question was never resolved — reorganized four times, authorized never, its workforce churned until the institution's memory fit in a retirement party — and the incentive architecture was never touched: suppression remained the only guaranteed money, the interface kept growing wherever the market could still write a policy or a politician could still extend a backstop, and the loops ran undisturbed at compound interest. The operational system that resulted is best described by its core institution, which is not an agency but a function: the triage cell — the standing national allocation process, descended from NMAC through three renames, whose annual product is the ranking of communities, watersheds, and incidents into protected, contested, and conceded. The cell's work is professional, transparent by the standards of the era, and openly tragic: demand exceeds capacity by an order of magnitude in every hard season, the capacity is substantially contracted — the private surge industry, born in the workforce collapse of the early 2030s, now fields more

resources than all governments combined — and the conceded category, which did not officially exist in 2030, has its own FEMA program, its own legal doctrine, and its own demographic: the post-fire diaspora, America's first internal climate migration with a name.

What distinguishes the Long Triage from mere decline is that nothing in it ever failed all at once — every year was survivable, every adaptation rational, every deferral defensible — and the system's people, as ever, made it work, which is precisely how it lasted. Mutual aid persists, threadbare and heroic. The insurance market is gone from the hazard zones, replaced by a federal backstop that pays slowly, litigates often, and functions mainly as a depopulation subsidy. Retreat happened at scale — more than in any other future — but by abandonment rather than design: the diaspora settled where the backstop's checks ran out, and the receiving communities' strains are the decade's politics. The knowledge base is the quietest casualty: the research enterprise defunded in the 2020s was never rebuilt, the reviews of the era's catastrophes were conducted by litigation, and the system of 2046 navigates by narrative — each hard season owned by whichever frame reaches the cameras first, exactly as a 2026 analysis predicted it would, in a passage nobody in the triage cell has read, because the document's ecosystem was among the things deferred.

The texture of the Long Triage is normalcy — which is its mechanism. Most Americans in 2046 experience the fire system rarely and mediated: the September smoke weeks, the diaspora neighbors, the backstop surcharge on the mortgage statement, the annual telethon production of the siege coverage. The conceded zones are elsewhere for almost everyone, the way struggling places are always elsewhere; the surge industry's camps and convoys read as competence; and the hard seasons arrive with the ritual grammar of hurricanes — named, tracked, survived, donated to, and absorbed. Inside the system, the professionals maintain the era's essential fiction, which is that it is an era at all rather than a slope: standards are still published, plans still filed, exercises still held, and the institutional forms of the 2020s persist like the storefronts of a hollowed main street, open and understaffed. What a 2026 visitor would find most disorienting is not the loss — every future has losses — but the absence of crisis: nothing is on fire that the system officially decided to let burn, no statute failed, no institution fell on a date a historian could cite. The Long Triage does not feel like collapse from inside. It feels like Tuesday, and that is the entire design of drift: it never presents a moment that demands more than it can have.

6.2 How It Happened

2026–2029: Nothing, Survivably

The lowest-regret package was studied, partially drafted, and overtaken by events that were each, individually, more urgent: the doctrine memo died in interdepartmental review; the lattice commitment was deemed premature pending the study; the study's vendor was contracted in 2027, descoped in 2028, and reported in 2029 into a government shutdown. The 2027 season was hard and heroic and reviewed by competing congressional hearings; the 2028 authorization never reached the floor. Every partner drew the same conclusion the Patchwork's states drew — but in this future the repricing energy was absent too: the same deferral that stalled Washington stalled the statehouses, the insurance commissioners settled for rate cases instead of mitigation mandates, and the hedging produced not a compact but a thousand separate crouches.

2030–2034: The Spiral Acquires Structure

The workforce broke first: the churn's fourth reorganization in 2031 met the common pathway's hard season, attrition crossed the pipeline's replacement rate permanently, and the surge industry — founded by the very leaders the system shed — scaled to fill the gap at three times the loaded cost and none of the doctrine. The carriers completed their withdrawal by 2033; the improvised backstop followed; the FAIR-plan insolvencies of 2034 converted four state programs into federal receivership. The conceded category entered the triage lexicon in 2032 as a planning honesty and became, within five years, an administrative fact with case law. Prescribed fire effectively ended outside the legacy Southeast and tribal programs — not banned, merely impossible: no workforce, no insurance, no agency willing to own an escape in the litigation climate the review vacuum had built.

2035–2039: Emergency Federalism

The 2037 siege — met in other futures by compacts or fleets — was met here by the military, the third consecutive season of Title 10 fire support, and the de facto FEMA-ization of wildland fire completed itself: fire became a disaster-response function, funded through declarations, governed by the emergency-management system's logic of response and recovery rather than the land system's logic of risk and stewardship. The land agencies' fire programs, four reorganizations deep, were consolidated into the disaster apparatus in 2038 — the consolidation of 2025's ambitions, achieved at last, by exhaustion, into the wrong institution. The diaspora's first decade moved an estimated three million people; the receiving regions' school-bond fights and housing politics

became the durable domestic issue the fires themselves never quite were, because the fires were episodic and the diaspora was every day.

2040–2046: The Treadmill

The 2044 season — the common pathway's worst — was the Long Triage's defining catastrophe and changed nothing structural, which is the future's thesis stated as an event: forty-one thousand structures, the triage cell's protocols executed correctly throughout, the surge industry's finest and most profitable hour, three commissions, no statute. By 2046 the system is stable in the way exhausted systems are: demand and capacity have found their brutal equilibrium, the conceded map expands a county or two a year, the professionals remaining are genuinely excellent at a job no one should have, and the national conversation has moved on to the diaspora, the receiverships, and the periodic question — raised after each hard season, deferred after each — of whether to build a real system. The leaders of 2046 are not villains and not fools. They are the inheritors of compound interest, administering a debt whose principal was deferrable in 2026 and is not now.

6.3 The Tensions and Loops in 2046

Tension	State in 2046	Loop Behavior
T1 Exposure	Resolved by catastrophe. Growth ended where insurance and backstops collapsed; retreat at maximum scale, by abandonment; the diaspora is the repricing, paid in kind.	L2 ran until it consumed its own fuel; now running in reverse, unmanaged, as depopulation.
T2 Regime	Untouched and expressed. Fuels debt at maximum across all ownerships; intentional fire extinct outside legacy cultures; every season a withdrawal against principal.	L1 fully expressed: the wildfire paradox, complete.
T3 Governance	Dissolved. Strategic authority migrated to the disaster apparatus; land judgment institutionally extinct; the seam closed because one side of it ceased to exist.	No seam, no judgment — the cheapest possible closure, at the highest possible price.
T4 Capacity	Collapsed and privatized. Public pipeline broken in 2031, never restarted; surge industry capable, costly, doctrine-thin; command depth one hard season deep.	L4 ran to failure; its replacement loop runs on contracts and inherits nothing.
T5 Federation	Atomized. No compact formed; engagement transactional and declaration-driven; mutual aid the last working institution, run on the culture's residual decency.	L3 in long reverse; reliability un-demonstrable by an annually reorganized counterparty.

Tension	State in 2046	Loop Behavior
T6 Knowledge	Dark. Research never rebuilt; reviews conducted by litigation; metrics owned by narrative; the 2044 season has four official acreages and no agreed lesson.	L5 sealed and rusted shut: the system cannot see itself and has stopped trying.

6.4 Ground Truth

A triage cell duty officer, August 2046. Her watch floor would impress a 2026 visitor — the inherited detection constellation still functions, the common operating picture is genuinely common — until the visitor understood what the picture is for. Tonight she has nine asks and capacity for four; the protocol's values matrix is open beside the political-sensitivity overlay nobody acknowledges and everybody uses; and the call she will make at 0200 — conceding the drainage with the eighty-year-old subdivision to protect the watershed that feeds a city — is correct by every published criterion and will be litigated for six years by the subdivision's diaspora. She is twenty years in. She has made eleven hundred of these calls. The protocol's authors built it precisely so that no one would have to decide what she decides nightly; that is, she has concluded, what deferral actually defers — decisions roll downhill until they land on whoever cannot pass them further, at the hour when every option is bad. *A volunteer chief, the same night, in the conceded zone.* His department is the only institution that did not leave — the county seat hollowed, the school consolidated two towns east, the backstop's buyout checks took the neighbors who could do math — and his engine, crewed tonight by four people whose median age is sixty-one, will meet whatever crosses the ridge because that is what the department has done since 1947. Nobody assigned him the conceded category. He found out the way his community found out everything in this future: by noticing what stopped arriving.

A surge division supervisor, September 2046. He left the federal service in 2032 — fourth reorganization, third pay freeze, a transfer memo that misspelled his duty station — and the industry built him back at triple the loaded rate: his division is competent, equipped, and assembled this morning from a portal, forty-one professionals with eleven employers, common credentials, and no shared doctrine deeper than the contract's safety annex. They will execute well today; they executed well at the 2044 fires, where his employer cleared its best margin in a decade. What the division cannot do is the thing he no longer has words for from the old service — hold an assignment across seasons, invest in a landscape, mentor without billing codes, belong to the place it protects. He is fifty-five, the youngest person on the line who remembers being formed by an institution rather than credentialed by one, and his retirement plan, which is sound, is indexed to a market that grows with the conceded map. He tries not to think about that part. The market does not require him to.

6.5 The Accounting

Who gained: the surge industry, this future's one unambiguous institutional success, capable and expensive and built from the public system's scattered bones; the receiving regions' landowners, briefly, until the strains arrived; and — the accounting must be honest — every official at every level across twenty years who avoided a hard vote, a hard order, or a hard season of implementation, each of whom banked the deferral's benefit personally and externalized its cost forward. Who lost: the conceded zones, comprehensively; the diaspora, twice — once by fire, once by reception; the workforce generation of the early 2030s, broken between the churn and the load; the land itself, on every ownership; and the idea of the system — the half-century's accumulated machinery of common standards, mutual obligation, and earned trust, spent down to the volunteer ethic, which is the only component that never depreciated. Who pays: everyone, in the least efficient currency available — catastrophe, litigation, migration, and compound interest — because the Long Triage is not the cheapest future; it is the most expensive one, billed irregularly, to whoever happens to be standing where the deferral lands. Its defining property, worth stating because it is the analysis's core finding: this future required no decisions. Every other future on the board had to be chosen, funded, and defended. This one merely had to be permitted.

6.6 Implications by Actor

For federal executives, the Long Triage is the demonstration that the gravest institutional risk was never a wrong decision but the accumulation of none: every executive in this future's history acted defensibly inside their tenure, and the compound of defensible tenures is the triage cell — the lesson being that an executive's real legacy is measured in instruments completed, not controversies avoided. For state leadership, the future is the cost of hedging without building: the states that crouched individually, rather than compacting, inherited receiverships, diaspora reception, and a fire system they neither govern nor can refuse — the Patchwork's nerve, declined, repriced as the Triage's bills. For tribal nations and the legacy burning cultures, this future's bitter distinction is custody of the last intentional fire on the continent — programs that survived by sovereignty and culture when every institutional program drowned, now the system's only living memory of fire as anything but enemy, and too small to carry a continent's debt. For county and local government, the conceded category is the future's local truth: discovered rather than announced, administered through what stops arriving, and contested by the only institution that never leaves — the volunteer department, whose persistence is the system's conscience and cannot be its plan. For operational leaders, the profession's center is the triage cell and its moral arithmetic: technically excellent people executing correct protocols inside an indefensible allocation, carrying decisions

downhill that two decades of officials declined to make — the era's defining occupational injury is not physical. For the private sector, the surge industry is the future's one institutional success and its perfect mirror: capable, expensive, doctrine-thin, and structurally indexed to the system's failure — a market that grows with the conceded map, staffed by the public system's scattered formation, profitable in exact proportion to everything the deferrals broke.

6.7 Signposts, 2026–2031

Early signature: the absence of instruments — which is harder to see than their presence, and is why this future is the stealthiest. Watch for the lowest-regret items studied rather than issued; doctrine memos dying in review; the study descoped, delayed, or reporting into noise; authorization slipping a cycle, then another, with each slip individually reasonable; qualification and militia instruments perpetually pending; partner agreements renewing on shorter terms without any compensating compact formation — hedging without architecture, the tell that distinguishes this future from the Patchwork; insurance withdrawal proceeding without regulatory counter-move; prescribed-fire accomplishment declining by paralysis rather than policy; and the workforce's quiet indicator — mid-career separations among the most qualified, visible in the data eighteen months before it is visible on any fire. The composite signal is temporal, not topical: every signpost in this catalog is something *not happening on schedule*, and the discipline it demands of a 2026 leadership team is the hardest in the document — tracking the dog that is not barking, quarter after quarter, while every individual silence stays defensible.

6.8 What 2046 Wishes 2026 Had Done

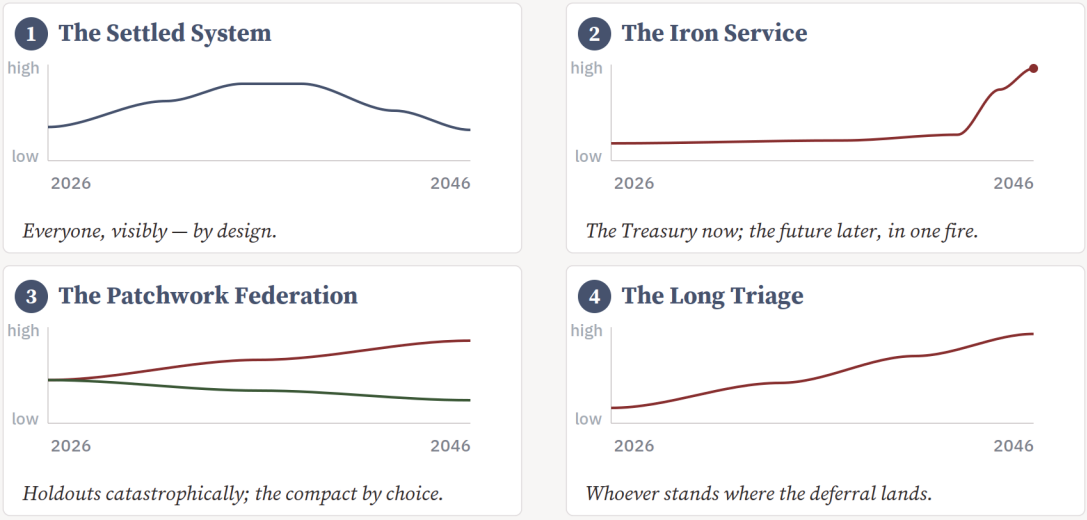
Anything. The duty officer's answer, and the future's: any of it — the doctrine, the lattice letter, the pre-registered criteria, the militia memo, any single completed instrument from the package that 2026 possessed in draft — because the Long Triage was never one decision's product and could never have been one decision's prevention; it was the compound of small deferrals, and compounds are interrupted anywhere. That is this future's gift to the present, and the reason it earns its place in the analysis despite being the grimmest reading: it is the only future whose prevention is cheap, distributed, and available to every actor at every level on any given Tuesday — and the only one that becomes unpreventable not through any event, but through the accumulation of seasons in which nothing was quite wrong enough to act on. The leaders of this 2046 do not wish their predecessors had been wiser, braver, or better funded. They wish, in the words the duty officer keeps above her station, that someone had treated the boring quarters as the decisive ones — because they were.

Part VII — Comparative Analysis

FIGURE 6 · COMPARATIVE ANALYSIS

The same measure, four shapes

Reckoning trajectory to 2046: the accumulated, unpriced cost each future leaves on the system. Qualitative — direction and distribution, not magnitudes.



"the Long Triage is not the cheapest future; it is the most expensive one"

What differentiates the futures, the signpost catalog, the approach wind-tunneled, and the decision aperture

7.1 Four Worlds, One Present

The futures share a present, a fire regime, a technology base, and a cast of rational actors; they differ in decisions — and Table 7–1 compresses where twenty years of decisions land each tension. Read down a column for a future's character; read across a row for a tension's possibility space; read the whole for the analysis's structural finding: no tension has a fated outcome. Every row contains the full range from repair to ruin, which means every degraded state in every future was reachable from 2026 by an alternative path — and every repaired state still is.

Tension	F1 Settled System	F2 Iron Service	F3 Patchwork	F4 Long Triage
T1 Exposure	Repriced by compact; managed retreat	Inverted into federal subsidy; maximum exposure	Repriced by regulators, unevenly; geographic	Resolved by catastrophe; retreat by abandonment
T2 Regime	Money retaught; ~40M intentional ac/yr	Suppression-maximal; fuels debt at maximum	Retaught regionally; federal estate the debtor	Untouched; the paradox fully expressed
T3 Governance	Rejoined by binding mechanism	Settled ceremonially; land missions hollow	Routed around; seam moved to federal boundary	Dissolved into the disaster apparatus
T4 Capacity	Rebuilt; dual fluency restored	Strong and narrow; one trade only	Strong, fragmented; crosswalk tax	Collapsed, then privatized
T5 Federation	Re-engaged, rebalanced alliance	Hierarchy achieved; alliance becomes market	Reconstituted without the center	Atomized; mutual aid the last institution
T6 Knowledge	Pre-registration became practice	Excellent, captive, unactionable	Plural; no national picture	Dark; navigation by narrative

7.2 One Season, Four Worlds: The Siege of 2037

The sharpest way to see institutions is to hold the event constant and vary only the world it lands in. The siege of 2037 — the common pathway's mid-course test, a six-week, three-geographic-area event with simultaneous metro-threatening fires in two states — occurs identically in all four futures: same ignitions, same wind, same drought signature. What follows is the same six weeks, four times.

In the Settled System

The siege arrives at a system with eleven years of compact discipline and six of statutory doctrine. The detection-to-decision chain runs in minutes; the metro fires meet two decades of parcel work and treatment mosaics, and the larger of them — the event that destroys a corridor in another future — loses its structure-to-structure chain at the third hardened subdivision and is starved against the 2034 burn units. Allocation strains honestly: the compact's priority process runs around the clock, the concurrence machinery groans under tempo and holds, and the season's defining dispute — a refuge's habitat objectives against a drawdown order — escalates, is decided, documented, and reviewed, becoming next year's doctrine revision. Eleven million acres burn; under two thousand structures are lost; the reviews are credible and the system's argument that week is about smoke. The siege functions as maintenance: it renews the coalition's memory of why the discipline exists.

In the Iron Service

The siege is the Service's masterpiece. The fleet's surge is flawless, the constellation's picture total, initial attack holds hundreds of ignitions the other futures never hear of, and four million acres burn where the Settled System concedes eleven — the comparison the Service's communicators will own for a decade. The cost is visible only in the breakthrough events: the two fires that beat the wind window arrive at fuel beds and subdivisions twenty years deep in protected accumulation and uninterrupted growth, and each destroys more structures in its run than any fire of the 2020s — losses booked as anomalies, reviewed by the Service's own excellent and captive process, and answered with fleet expansion. The land record of the siege is unmeasured: the burn windows sacrificed to the surge, the habitat objectives suspended, the trust acres dozer-lined under emergency authority — none of it appears in metrics anyone reads. The siege functions as confirmation: it renews the institution's certainty, and the curve's.

In the Patchwork Federation

The siege is two different events separated by a property line. Inside the compact, it runs much as it runs in the Settled System — the machinery negotiated rather than statutory, slower at the start and equally sturdy — with the federal fleet flying under compact tasking in the command arrangement nobody designed. Outside, it is the 2020s replayed at 2037's intensity: the holdout-state metro fire finds untreated fuels and unhardened growth, the qualification seams cost a day of integration the wind does not grant, and the losses concentrate with a geographic precision that the decade's maps have made predictable and the decade's politics have made unspeakable. The federal estate burns biggest and dirtiest, its smoke the compact's grievance and its protection the compact's invoice. The siege functions as a verdict published in real time: the same wind, priced three ways, on one map.

In the Long Triage

The siege is met by the military for the third consecutive year, by the surge industry at its finest and most profitable, and by a triage cell executing its protocol correctly — which is the sentence the era's every review will open with, because the protocol's correctness is the only thing the system still controls. Nine asks, four capacities, nightly: the metro fires get everything, and get it late; the conceded drainages get the overflight that documents them; the volunteer departments meet what crosses the ridge. Twenty-six thousand structures are lost across the six weeks, the diaspora's 2037 cohort forms, four official acreages enter four official records, and the season produces three commissions, no statute, and a memorable hearing exchange in which a duty officer, asked who decided to concede the drainages, answers accurately: no one, ever — that was the point of

everything. The siege functions as another installment: the system absorbs it the way a debtor absorbs interest, by growing accustomed.

7.3 What Actually Differentiates the Futures

Because the weather was held common, the divergence is fully attributable, and the attribution is uncomfortable in its smallness. The futures do not fork on the catastrophes — the hard seasons of 2031, 2037, and 2044 occur in all four and are absorbed, exploited, or compounded according to what each world had already built. They fork on instruments: whether the seam doctrine issued before or after its first test; whether the study's criteria were registered before its subject acquired a constituency; whether the lattice was stabilized while the partners were still deciding what to assume; whether the militia memo was signed. Three structural observations follow. First, *the forks are front-loaded*: nearly every differentiating decision in the four histories occurs between 2026 and 2031, and the remaining fifteen years are largely the compounding of those five — which is the analytical basis for this document's preoccupation with the present quarter. Second, *catastrophes are amplifiers, not deciders*: the 2027 season authorizes the Iron Service, recruits the Patchwork's compact, fuels the Settled System's legislation, and produces hearings in the Long Triage — the same event, four different harvests, determined entirely by what each system had standing when it arrived. Third, *settlement and repricing are separable but not independent*: the futures where one axis resolves without the other (F2, F3) are stable but lopsided, each strong exactly where the other is weak — and the analysis found no plausible path in which either axis resolves *because of* the other's failure, but several in which one's early progress created the coalition for the second. The practical translation: the two reform tracks reinforce when run together and merely coexist when run apart.

7.4 The Signpost Catalog

Table 7–2 consolidates the futures' early indicators into a single watch list, organized by what a 2026–2031 observer can actually see. Signposts are evidence, not verdicts: most quarters will show mixed signals, and the discipline is trend, not incident. The table's final column states the indicator's polarity — which futures it feeds — because several signposts are shared between futures and distinguish only in combination (state hedging, for instance, feeds the Patchwork when it congeals into compacts and the Long Triage when it does not).

Signpost (observable 2026–2031)	What It Indicates	Feeds
Seam doctrine issued before peak season; revised after use	Governance repair is real and being exercised	F1
Study criteria pre-registered and published before season close	The fork will be decided on evidence	F1; protects against F2/F4
Authorization moving in a catastrophe's emotional window; concurrence diluted in conference	Settlement by acclamation; ceremonial doctrine	F2
Prescribed-fire accomplishment declining; first escape ends growth rather than producing reform	Suppression identity hardening; L1 protected	F2, F4
Militia/qualification instruments issued and funded	Dual-fluency pipeline restarting; L4 repair begun	F1; absence feeds F2/F4
Multi-state compacts with federal-absence clauses; insurance-commissioner mitigation mandates	Repricing arriving from below; hedging becoming architecture	F3; with federal re-engagement, F1
Lattice agreements on shortening terms, thickening conditions, no compact formation	Hedging without architecture; coordination capital draining	F4
Lowest-regret items studied, drafted, perpetually pending	Drift compounding; the dog not barking	F4
Interface construction accelerating while carriers withdraw	Protection promise being capitalized; L2 subsidized	F2, F4
Tribal 638 expansion concentrated at trust-interface friction points	Federal reliability being priced by its most attentive counterparty	F3; managed exit in F2
Mid-career separations among the most qualified rising in workforce data	L4 crossing replacement threshold — 18-month lead indicator	F4, F2 (narrow form)
Consequence-based metrics adopted; research re-funded as study dependency	L5 breaking open; the system choosing to see	F1, F3

7.5 The Approach, Wind-Tunneled

Volume Two's approach — the lowest-regret package, the structural fork held for evidence, the compact track — was developed before these futures were built; testing it through them is the futures' first operational use, and the results discipline the recommendation rather than flattering it. The lowest-regret package is robust, asymmetrically. All seven items improve every future they enter, but their leverage concentrates brutally: in the histories, NR-1 (seam doctrine, early) and NR-6 (pre-registered criteria) are the hinge of the F1/F2 divergence; NR-4 (lattice stabilization) is the single instrument whose absence appears in both contested futures' origin stories; and NR-5 (militia repair) is the only 2026 action that reaches the 2040s workforce in every branch. The package's 2026 framing as "cheap insurance" survives the wind tunnel; its framing as optional sequencing does not — in three of four futures, the items not done by 2028 are never done. The structural fork matters less than its manner of deciding. The futures embarrass both COA camps evenly: F1 contains a consolidation that works and F2 a consolidation that calcifies; the Patchwork contains the federated end-state achieved at maximum cost by the worst route. What separates the good settlements from the bad is not which structure won but whether the decision was made deliberately, on registered evidence, with the binding mechanisms drafted in calm — the histories' verdict is that *settlement quality is a function of decision quality*, which converts the fork from a structural question back into the process question Volume Two's recommendation made it. The compact track is the only instrument that reaches T1, in every future where T1 is reached. Repricing arrives federally in F1, regulatorily in F3, and never otherwise; in no future does it arrive from the fire system's own machinery — confirmation of Volume Two's claim that the exposure tension cannot be addressed by the institutions that respond to its consequences. And the recommendation's drift warning under-weighted itself. Volume Two named drift the leading default; the futures quantify the lead: the Long Triage is the only future requiring zero affirmative decisions, its signposts are the hardest to see, and its prevention window — the front-loaded fork years — is the same 2026–2031 period in which its signature is mere unremarkable delay.

Table 7–3 states the wind-tunnel result at instrument level: each lowest-regret item's fate and leverage in each future, drawn from the four histories.

Instrument	F1 Settled System	F2 Iron Service	F3 Patchwork	F4 Long Triage
NR-1 Seam doctrine, early	Issued 2026; matured into statutory concurrence — the hinge	Issued thin, overtaken; drafted in crisis, hollow forever	Issued late; seam relocated to federal boundary	Died in review — first domino of the drift

Instrument	F1 Settled System	F2 Iron Service	F3 Patchwork	F4 Long Triage
NR-2 Review process	Codified; converted hard seasons into doctrine	Captured by the institution it reviews	Compact built its own; federal record thin	Replaced by litigation — the era's reviews have dockets
NR-3 Trust doctrine, co-produced	Negotiated 2026–28; the reason tribal programs are load-bearing	Drafted in a week; chronic litigation, managed exit	Mooted by compacting — sovereignty priced by exit	Never produced; trust interface churned with everything else
NR-4 Lattice stabilization	Issued; the compact formed around a reliable center	Irrelevant — dominance replaced reliability	Never issued — named by the compact's architects as the divergence	Never issued — hedging without architecture
NR-5 Militia / qualification repair	Issued 2027; the only 2026 action visible in the 2040s bench	Never issued; pipeline rebuilt narrow, one trade	Compact built its own pipeline; federal bench never recovered	Never issued; L4 ran to failure, surge industry inherited
NR-6 Pre-registered evaluation	Published 2026; the fork decided on evidence	Study reported to a decided question	Criteria contested because never registered; study honest and inert	Study descoped into a shutdown
NR-7 Standards body protected	Protected; absorbed autonomy-era tech without fracturing	Absorbed into directorates; portability up, legitimacy drained	Starved; fractured 2033; the crosswalk tax forever	Persisted formally, hollowed functionally

7.6 The Decision Aperture: How Choices Now Govern Choices Later

The analysis's central deliverable for leaders is the aperture map: which futures remain reachable as a function of what is done, and not done, in sequence. Stated as a closing schedule. Through roughly 2028, all four futures are reachable — the system stands at the matrix's center, and every instrument in the lowest-regret package functions as aperture maintenance: each one issued keeps F1 reachable and F4 distant at trivial cost. The first doors close around 2028–2031. If the structural question settles in a catastrophe's window with ceremonial doctrine, F1 closes — the histories contain no path back from a hollow concurrence once the institution's culture sets around it; if it settles deliberately with binding mechanisms, F2 closes. If partner hedging congeals into compact architecture before any federal reliability is demonstrated, the center's convening role — the difference between F1 and F3 — closes within a few agreement cycles, because compacts, once built, do not un-build to rejoin an unreliable convener. The

repricing door closes slowest and cruelest. T1 instruments remain technically available throughout all four histories — there is no year in which cost-share conditioning becomes impossible — but their political price compounds: in 2026 repricing competes with subsidy; by the mid-2030s, in the unrepriced futures, it competes with a backstop constituency, a capitalized protection promise, and a development sector that has priced the status quo into a decade of mortgages, and the histories show it arriving thereafter only as catastrophe's harvest. By the mid-2030s, the system is steering within a future rather than among them — the remaining choices are real but interior: which Patchwork, how brittle an Iron Service, how managed a triage. The aperture map's summary for a 2026 leader is arithmetic, not rhetoric: the present holds the maximum option value the system will ever have, every deferred quarter transfers choices from the leaders of 2046 to the compound interest of the loops, and the transfer is invisible at the time it occurs — which is precisely why it occurs.

7.7 Stress Test: The Harsher Regime

Holding the weather common was a method choice; releasing it is the obligatory sensitivity check. Run all four futures against a harsher-than-median pathway — the regime's upper quartile, with the hard seasons arriving sooner, larger, and twinned — and the futures do not reshuffle; they separate. The Settled System degrades gracefully: its losses rise, its retreat accelerates, its smoke politics worsen — and its machinery bends without breaking, because every load-bearing element was built with margin and feedback. The Patchwork degrades geographically: the compact zone holds at higher cost while the holdouts and the federal estate fail faster, and the map's gradient steepens into the politics of walls. The Iron Service degrades catastrophically and late: the harsher regime advances the breakthrough date and raises its magnitude, and the future's entire character — deferred risk, concentrated — converts the regime's upper quartile directly into loss exceedance. The Long Triage simply arrives early, with the 2030s compressed into the late 2020s. The stress test's finding is the analysis's most consequential sentence for anyone tempted to wait for better climate information before acting: *regime uncertainty raises the value of institutional repair* — the harsher the pathway, the larger the performance gap between the chosen futures and the default — because robust institutions are precisely the instrument by which a system performs under conditions it cannot predict. Waiting for the regime to clarify is not caution. It is a bet on the median, placed with other people's decades.

7.8 Wildcards and Discontinuities

Alternative futures built from structural drivers share a blind spot: discontinuities — low-probability, high-consequence shocks that arrive from outside the drivers entirely. The

futures tradition handles them not by prediction but by stress: name the plausible shocks, run each across the four worlds, and observe which futures absorb and which amplify. The same standard that governs this document's vignettes governs its wildcards: each must end in the present tense — in a hedge available now — or it is spectacle. Five are run here, four adverse and one a gift, because unreadiness for good news is a failure mode too.

The Continental Smoke Year

A volcanic event, a compounding boreal season, or both: hemispheric smoke loading that makes air quality a months-long national emergency, with every prescribed-fire program's social license suddenly hostage to a sky it did not make. The Settled System's smoke-equity architecture strains and governs — allowances flex, health protocols deploy, the program survives because its airshed politics were institutionalized before the test. The Iron Service and the Long Triage face a public-health crisis with no machinery: intentional fire, already marginal, is banned outright in the panic, and the ban outlives the plume by a decade. The Patchwork manages it as it manages everything — jurisdiction by jurisdiction, competently and unevenly. *The hedge, now:* build the smoke governance before the scale-up needs it — joint fire–air-quality authorities, health-protocol doctrine, and a public account of smoke as the cost of the cure — because the Settled System's own elders name deferred smoke architecture as their first regret, and the wildcard converts that regret into program extinction everywhere the architecture is missing.

The Mass-Casualty Responder Event

A burnover or aviation disaster taking dozens of professionals in a single afternoon — the system's recurring nightmare, scaled. Where credible review machinery exists, the event becomes doctrine and memorial: grief converted into practice, the lineage the system's safety culture was built from. In the Iron Service it triggers the institution's deepest identity crisis and resolves, as that institution resolves everything, into suppression doubling-down — more armor, more autonomy, less fire. In the Long Triage it accelerates the workforce exit by years and hands the surge industry its largest cohort. The pattern generalizes across every wildcard in this section: *the shock lands hardest where the learning machinery is weakest. The hedge, now:* NR-2 is the hedge — the review process, its learning-versus-blame boundary, and the family and survivor doctrine, all pre-built — because whether a catastrophe becomes doctrine or becomes doubling-down is decided by what exists the morning before it, never the morning after.

The Decade-Scale Fiscal Crisis

A federal debt event forcing discretionary contraction across a decade — the environment in which every "guaranteed" account discovers its fine print. The Settled System bends:

the compact runs on state money, statutory mitigation funds, and insurance mechanisms, and its federal dependency is one pillar among several. The Iron Service breaks: the fleet, the academy, and the backstop are pure discretionary exposure, and the future most dependent on a single sovereign's annual generosity is the most fragile to its interruption — the crisis converts the strongest institution on the board into the fastest-failing one. The Patchwork barely notices federally and suffers regionally; the Long Triage *was* the fiscal crisis, distributed across twenty years. *The hedge, now:* diversify the funding architecture while diversification is cheap — state and compact instruments, protected trust accounts, insurance-linked mechanisms — because a system funded from one appropriation is a system with one point of failure, and the futures price that design choice at its full cost exactly once.

The Incendiary Campaign

Coordinated hostile ignitions timed to a wind event — cheap, repeatable, and aimed at the system's seams. All four futures respond operationally; they diverge on what follows. The settled futures absorb it as crime: investigation, prosecution, hardening, proportion. The contested futures absorb it as accelerant — one more load on architectures already strained. The Iron Service alone converts it into mission: the security framing completes the homeland-security identity its first two decades sketched, and fire policy passes, permanently, into a grammar in which land management is a vulnerability rather than a purpose. *The hedge, now:* pre-decide the authorities — detection and attribution capability, investigative jurisdiction, the boundary between fire management and security response — because in the event's vacuum the security framing expands to fill whatever was left undecided, and it does not give territory back.

The Construction Breakthrough

The gift: cheap, retrofittable, genuinely fire-resistant building envelopes scaling commercially in the 2030s — the technology that could break L2 from the materials side. It accelerates the repriced futures, where codes, parity funds, and insurance signals exist to pull it through the building stock at adoption speed: the Settled System's retreat arithmetic eases, the Patchwork's compact zone retrofits in a decade. And it strands in the unrepriced ones: no code requires it, no instrument finances it, no premium rewards it, and the breakthrough joins the long inventory of available solutions the incentive architecture declined to purchase — the Iron Service hardens nothing because the fleet is the hardening, and the Long Triage retrofits exactly those structures whose owners had cash, which is to say the ones least likely to be conceded anyway. *The hedge, now:* build the rails before the train exists — the code frameworks, financing instruments, and certification machinery a breakthrough would run on — because the upside wildcard is the

cheapest one to prepare for and the most expensive one to waste, and a system unready for good news has made a statement about itself that the futures take literally.

The wildcard run's composite finding strengthens the stress test's: shocks do not reshuffle the futures, they amplify their characters — resilient architectures metabolize surprise, brittle ones compound it, and the learning machinery's condition on the day the shock arrives decides which. The only future that converts every shock — including the gift — into further loss is the one nobody chose.

Part VIII — Assumption-Based Planning for the Present

The load-bearing assumptions of current policy, their vulnerability across the futures, and the shaping, hedging, and watching that follow

8.1 The Method's Last Step

Assumption-based planning closes the loop the futures opened: identify the assumptions on which current plans and postures actually rest — especially the implicit ones, which are load-bearing precisely because no one decided them — test each against the futures for vulnerability, and assign each a treatment: *shaping actions* that push the world toward the futures where the assumption holds, *hedging actions* that keep the plan viable where it fails, and *signposts* that warn when it is failing (Dewar et al. 1993; Dewar 2002). Table 8–1 performs the audit on eight assumptions that the 2026 system's observable behavior — budgets, postures, sequencing — reveals it to be making. The discipline the table imposes is the document's entire purpose in one mechanism: an organization that reviews this table annually, against the signpost catalog, is planning under uncertainty; an organization that does not is planning under an assumption — the ninth and largest — that the future will resemble its preferences.

Load-Bearing Assumption (implicit in 2026 behavior)	Where It Fails	Shaping Action	Hedging Action
A1. Suppression capability can outpace the regime indefinitely	F2 (catastrophically, late), F4 (continuously)	Fund risk-retiring work at suppression-grade reliability; statutory floor for intentional fire	Publish the loss-exceedance curve annually; pre-build breakthrough-fire doctrine and recovery architecture
A2. The partners will keep showing up on legacy terms	F3 (they build their own terms), F4 (they stop)	Issue the lattice stabilization; demonstrate counterparty reliability through two full cycles	Treat compact formation as a partner to join early, not a defection to lament late
A3. The structural question will be settled soon, and settling it settles the system	F2 (settled badly), F3/F4 (never settled)	Pre-register study criteria; draft binding mechanisms in calm; decide once, on evidence	Build doctrine, review, and trust instruments that function under any structure — the package is the hedge

Load-Bearing Assumption (implicit in 2026 behavior)	Where It Fails	Shaping Action	Hedging Action
A4. Qualified people will be available when structures need them	All futures except F1; binding everywhere	Issue militia and qualification instruments now — the only action that reaches 2040 in every branch	Track mid-career separation data quarterly; treat change-absorption as a budgeted resource
A5. Insurance will remain available, or its loss will be someone else's problem	F2 (nationalized into subsidy), F4 (collapse and backstop)	Engage regulators early; condition any backstop on mitigation from its first draft	Map FAIR-plan and carrier exposure by county; pre-design conditioned-backstop architecture before the emergency writes it
A6. The land missions can absorb a transition's neglect and recover	F2 (hollowed permanently), F4 (extinct)	Ring-fence intentional-fire capacity and land-objective machinery during any reorganization	Statutory floors and protected accounts — mission elements that survive by default rather than by annual defense
A7. Reviews and metrics will surface the truth in time to act on it	F2 (truth captive), F4 (truth dark)	Pre-register evaluation; re-fund the research base as the study's own dependency	Maintain an external, multi-sovereign review bench; never let the first severe outcome define the process
A8. There will be a better, calmer moment to act than now	Every future; the Long Triage is this assumption, compounded	None available — this assumption cannot be shaped, only refused	The signpost discipline itself: quarterly review of what has not happened on schedule

8.2 The Watching: A Monitoring Discipline

Signposts without an owner are scenery, so the method's final requirement is a watch: who reviews what, on what cadence, with what authority to act. The architecture this analysis recommends is deliberately modest — monitoring regimes fail by ambition — and fits any level of the system. *Quarterly*: one standing hour, any leadership team, against two lists — the signpost catalog (what has happened) and the Long Triage's inverse catalog (what has not happened on schedule), with the second list reviewed first, because it is the one attention slides off. *Annually*: the assumption audit of Table 8–1, performed adversarially — the red-team discipline of the companion volumes applied to one's own plans — with each assumption's status moved among holding, eroding, and failed, and every "eroding" verdict assigned a hedge with a name and a date. The annual audit also runs the wildcard set of Section 7.8 as a one-hour tabletop against the current posture — the five hedges checked for existence, not eloquence, and the upside wildcard included,

because unreadiness for good news is the cheapest failure in this document to fix. *At each inflection point* — the study's delivery, the first contested-strategy severe outcome, each authorization cycle — a full aperture review: which futures has the period's record closed, which remain reachable, and what does the closing schedule of Section 7.6 say the next period costs. None of this requires new institutions; all of it requires the one resource the futures show the system chronically misallocating — senior attention to slow variables — and the watch's real function is to give that attention a standing claim on the calendar that the urgent cannot fully evict.

8.3 Using the Futures: Exercises for Leadership Teams

Futures documents die on shelves unless they are exercised, so this section converts the analysis into four working formats, each sized for a real calendar and usable at any level from a fire district's officer corps to a departmental executive team. *The aperture seminar* (half day, annually): the team reads one future in full — a different one each year — then works two questions against its own organization: which of our current commitments assume this future will not happen, and what would we wish, from inside it, that we had done this year. The discipline is to answer in instruments, not intentions. *The signpost watch* (one hour, quarterly): the standing review of Section 8.2, run from the catalog of Table 7–2 — with the chair enforcing the rule that the not-happening list is reviewed first and that every "eroding" assumption leaves the room with an owner. *The premortem, futures edition* (two hours, before any major commitment): the team places its pending decision — a reorganization, an agreement, a capital program — inside each of the four futures in turn and writes the 2046 after-action review of the decision from within that world; commitments that read as wise in one future and ruinous in three are bets, and the exercise's product is the hedge that converts the bet into a position. *The two-sided table* (for intergovernmental teams): federal and partner participants exchange futures — each argues the other's most uncomfortable world as its advocate — which is the fastest known method for surfacing the counterparty assumptions that Section 8.1's table can only list. The formats share one rule, carried over from the companion volumes' red-team discipline: the exercises are scored by what changes afterward — an assumption retired, a hedge funded, an instrument issued — and a team that exercises the futures annually without ever changing a decision has found an expensive way to read fiction.

8.4 Closing: The Present, Correctly Sized

The two-volume work behind this analysis ended by handing the system's work to the actors who hold its decision rights; this analysis ends by handing those actors the dimension the present always hides — its own size. The futures show the present to be larger than it feels: the quarters between 2026 and 2031 hold the maximum option value

the system will possess in this generation, the forks are front-loaded, the instruments are drafted, and the default future is the only one that asks nothing of anyone. They also show the present to be smaller than it fears: no single decision in any history saves or dooms the system; the futures are compounds, every loop is interrupted anywhere, and the difference between the best world on the board and the worst is, at its origin, a stack of completed paperwork that 2026 found tedious. Leaders at every level of this system — the unit, the county, the compact, the Congress — can locate themselves in these pages: every future was built from decisions taken at every level, and every signpost in the catalog is visible from somewhere specific, which means someone specific is its watch. The discipline this document asks for is the same one the companion volumes asked of analysis, applied now to time: appreciate the futures before defining the strategy; define the strategy before the season defines it for you; and hold, against every quarter's urgencies, the question the duty officer of 2046 would ask this generation if she could — *what was, what is, what's going to be — and what would tell you you're wrong*. The futures are written. Which one is history is not.

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This volume is the system tier of a larger body of work. It pairs *The American Wildfire System Under Reorganization* — the as-built record, the six structural tensions, and the approach with its red team and falsification criteria — with *Alternative Futures Following the American Wildfire System Reorganization*, which carries those criteria forward into four futures to 2046. Below it, *The Incident Tier* addresses incident response and coordination — how a system decides what to protect when demand exceeds capacity, what the people of an incident need from it, and what a new administrator must build before the season tests the answer. The *Operational Leader's Field Guide* and the *OLFG Companion: Quick Reference* (Cogplexiti, 2026) operate at the operational-leader level — decision quality, red teaming, communication under pressure, and learning from action, in the individual leader's hands. Together they run from the national architecture to the individual decision.

Cogplexiti helps leaders and organizations make consequential decisions in complex operational environments — through red teaming, decision-quality practice, alternative analysis, and operational leadership development grounded in real command experience. Inquiries: cogplexiti.com · jayson@cogplexiti.com.

ISBN: 979-8-9959056-4-6

A reorganization is a bet on a future. The discipline is knowing which one — and stating in advance what would tell you the bet is wrong.

The American wildfire system is being reorganized while it runs. The institutions, incentives, and authorities that decide how the nation meets fire are shifting — and the choices made in the next few seasons will open or foreclose the futures available a generation out.

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