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MEMORANDUM

To: Regional Fire Services Study Board

c/o Cadence Matijevich, Washoe County Government Affairs Liaison

From: Mark Ghilarducci, President and CEO of Emergent Global Solutions, Inc.

Date: Amended July 16, 2026; Initial July 8, 2026

Re: Mid-Progress Preliminary Recommendations by Task — Regional Fire and Emergency Medical Services (EMS) Consolidation Study

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This memorandum compiles the draft preliminary recommendations developed to date under the Regional Fire and EMS Feasibility, Efficiency and Service Enhancement Study pursuant to Task 1.1B deliverable calling for a Mid-Project Progress Report. **The draft recommendations compiled below are preliminary and remain subject to change.** The recommendations reflect the Study Team's analysis to date, drawn from the individual technical task reports and appendices, and have not yet been discussed with, or validated by the stakeholders. **No recommendation in this memorandum should be treated as final, adopted, or binding.**

Task 1 Mid-Project Internal Stakeholder Workshop

This memorandum, together with the accompanying Workshop discussion, constitutes Task 1.1B deliverable. Once preliminary recommendations are developed, the Study Team convenes an Internal Stakeholder Workshop — including individual virtual meetings with each Board member

- to present preliminary data analyses, service mapping results, and early governance concepts for discussion. Facilitated dialogue allows participants to validate findings, identify operational issues, and refine assumptions guiding the

next phase of the Study. Workshop input, including consensus items and follow-up actions, will be documented.

Task 2 Regional Fire and EMS Operational Performance Analysis

Technical Task 2 evaluates fire and EMS service delivery, governance, and deployment conditions across the Reno Fire Department (RFD), Sparks Fire Department (SFD), and Truckee Meadows Fire Protection District (TMFPD), and situates current findings against two decades of prior regional studies (Appendices 2A through 2R).

- The regional system already functions as an interconnected operating environment despite remaining administratively fragmented. Recurring findings across current and prior studies confirm that dispatch integration and interoperable Computer-Aided Dispatch (CAD) systems remain the highest-yield operational improvement opportunity; that closest-unit response across jurisdictional boundaries is critical to optimizing outcomes; that EMS demand is the dominant driver of workload and system stress; and that standardized performance metrics are necessary for systemwide evaluation.
- Establish a unified regional data governance framework built on three interdependent components: a standardized data dictionary, a formal validation protocol, and full National Emergency Response Information System (NERIS) alignment. Data that does not meet both internal validation and NERIS compliance standards should not be used for official reporting or system evaluation (Appendix 2O).
- Expand the existing HxGN OnCall governance boards — currently a technology-oversight and change-management mechanism — into a complete regional performance-governance structure that also encompasses formal performance definitions, regional quality control, and recurring fire and EMS system review.
- Pursue a phased regional approach rather than immediate structural consolidation. Operational integration — closest-unit response, boundary-drop deployment, dispatch protocol harmonization, and performance standardization — represents the most immediate opportunity for measurable improvement, followed by longer-term coordinated investment in stations, staffing, EMS integration, community risk reduction, and wildfire risk reduction.
- Adopt the four-phase, 36-to-60-month Regional Fire Service Implementation and Transition Roadmap (Appendix 2R): Phase 1 (months 0–6) governance and organizational alignment; Phase 2 (months 6–18) data, systems, and performance

integration; Phase 3 (months 12–36) operational and deployment integration; and Phase 4 (months 24–60) full organizational integration and optimization — each with identified risk-mitigation strategies covering governance, labor, operational, financial, technology, and performance risk.

- Recognize and build on the tentative regional Automatic Vehicle Location (AVL) coordination agreements already underway among the participating agencies; early implementation of shared AVL visibility and dispatch logic provides an important operational foundation for future deployment integration and performance-measurement standardization.

Task 3 Funding Sources and Financial Baseline

Technical Task 3 evaluates the financial baseline of RFD, SFD, and TMFPD and the long-term sustainability of the region's principal revenue sources.

- Washoe County's local governments rely on a limited number of revenue sources that are largely controlled by state law and broader economic conditions — principally ad valorem property taxes, Consolidated Tax (CTAX) distributions, and, for agencies providing emergency medical transport, Ground Emergency Medical Transport (GEMT) reimbursements. Nevada's property tax system limits long-term revenue growth through statutory caps on taxable value increases (generally 3% annually for owner-occupied residential property and 8% for other property); CTAX revenues depend on statewide economic activity and legislative distribution formulas outside local control; and GEMT reimbursements, while a valuable supplemental EMS funding source, are subject to federal policy changes and reimbursement timing. First responder fees may represent an additional revenue opportunity for agencies providing emergency medical services. Local governments should remain cautious about using rapidly growing revenues to support permanent operating expenditures.

- Significant long-term operating cost reductions from consolidation are uncommon. Because personnel costs typically represent 75 to 90 percent of total fire department operating expenditures, consolidation rarely reduces the number of firefighters required to meet emergency response standards, and salary equalization, benefit alignment, technology integration, and transition costs often offset anticipated administrative savings, particularly in the initial years following consolidation. The primary value of consolidation is therefore not immediate budget reduction, but the opportunity to improve regional service delivery, operational efficiency, and long-term organizational effectiveness — by eliminating duplicative administrative functions, standardizing policies and training, improving resource

deployment, strengthening regional command and coordination, and enhancing purchasing and fleet management efficiencies.

- Each agency's five-year financial outlook (2026–2030) reflects common exposures: wildfire preparedness and response costs, personnel-related expenditures (salaries, overtime, healthcare, retirement contributions), and capital replacement requirements for apparatus, facilities, and technology — each expected to grow faster than baseline revenue and to narrow operating margins absent continued reserve management, disciplined capital planning, and multi-year financial forecasting.
- Regionalization presents financial challenges alongside its benefits: transition costs (labor integration, information technology, communications systems, fleet standardization, facilities planning, legal services, governance development) are likely to be significant and to precede realized operational savings; labor cost harmonization — particularly if compensation is aligned upward to the highest existing standard — represents the largest financial uncertainty; and governance and cost-allocation questions among the three differently funded and budgeted agencies must be resolved through a transparent, equitable framework to avoid the perception that one jurisdiction is subsidizing another.
- The financial case for a regional fire service agency is strongest when viewed as a long-term strategy to improve sustainability, operational efficiency, capital planning, and resilience against rising labor and wildfire-related costs, rather than as a mechanism for generating short-term savings. Decision-makers should not expect significant immediate cost reductions.

Task 4.1 Governance Structure Development

Technical Task 4.1 evaluates regional fire and EMS governance structures available to RFD, SFD, and TMFPD and develops a phased governance recommendation. The recommended governance pathway is a phased two-track approach: implement the Washoe Fire Service Realignment Plan as the immediate governance and operational-alignment platform, while concurrently preparing the legal, financial, labor, EMS, and service-equity requirements for a Metropolitan Washoe Fire Authority.

- **1.** Adopt the Washoe Fire Service Realignment Plan as the immediate governance platform. It provides an attainable, lower-risk way to address dispatch, closest appropriate resource response, common policies, training, data, and procurement without waiting for full consolidation.

- **2.** Create a Management Council and formal working groups by charter or interlocal agreement. A written governance structure makes regional collaboration durable, transparent, and accountable.
- **3.** Prioritize dispatch policy, AVL, closest appropriate resource dispatch, and common performance metrics during the first 12 to 18 months. These areas recur in earlier studies and align with public expectations for rapid and seamless coordination.
- **4.** Use an expanded interlocal model as a transitional or limited-purpose structure unless the region elects a narrower shared-services strategy. An expanded interlocal agreement can support shared services but is not the strongest long-term platform for unified funding, personnel, capital planning, and public accountability.
- **5.** Develop the Metropolitan Washoe Fire Authority as the preferred long-term full-consolidation option. A specially designed authority can address Nevada Revised Statutes (NRS) 474 limitations, city representation, independent governance, funding protection, and regional service accountability.
- **6.** Complete financial and legislative modeling for funding powers, statutory authority, tax-cap issues, service-area boundaries, board composition, and revenue-transfer mechanisms. The authority decision package requires quantified financial assumptions and legally validated implementation authority.
- **7.** Include a workforce transition framework consistent with NRS 288 in any full-consolidation option. Labor stability and fair transition of existing employees are essential to operational continuity and political feasibility.
- **8.** Tie governance decisions to service-level commitments and public accountability. Public survey findings support continued development of regional options — 54.9% of respondents favored a shared fire department model, 74.1% were very or somewhat open to greater coordination or consolidation if it improved emergency response, and 69.7% supported a regional approach if it is more cost-effective — but support is conditional on improved response, cost-effectiveness, transparency, and protection of service levels across jurisdictions. The pie charts below visually demonstrate that all three findings point the same direction: real appetite for regional coordination, but each is conditioned on a specific payoff — a shared department, better emergency response, or lower cost.

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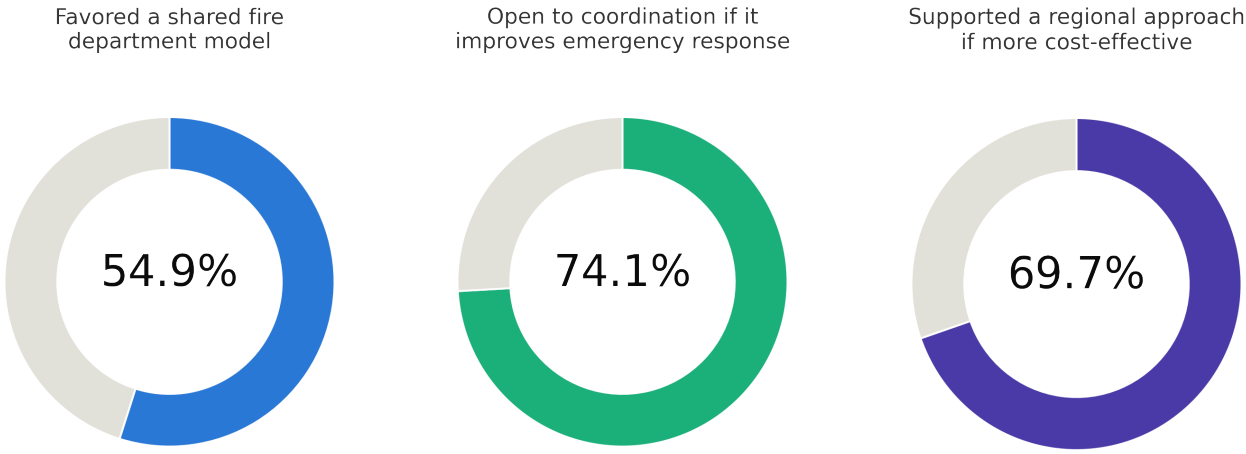

Recommended Phasing

- **Phase 1 (Establish the Realignment Plan):** adopt a written charter or interlocal agreement establishing the Management Council and working groups; approve a 12- to 18-month regional workplan; create a public-facing regional performance dashboard; provide quarterly progress updates to agency leadership and the Board.
- **Phase 2 (Test and Validate Regional Governance Readiness):** validate whether regional operating policies are adopted and used consistently; measure whether dispatch, automatic aid, closest appropriate resource response, and common performance metrics are improving service reliability; identify unresolved barriers; develop financial scenarios for current-state, realignment, expanded interlocal agreement, and authority-based consolidation models.
- **Phase 3 (Prepare Metropolitan Washoe Fire Authority Decision Package):** develop proposed legislative language; complete the financial model (revenue transfers, tax or fee authority, assets, liabilities, reserves, debt, capital replacement, and administrative transition costs); develop an NRS 288-consistent personnel transition framework; define service-level commitments and equity protections; develop public accountability measures; and present a decision package comparing current-state, realignment, interlocal agreement, and authority-based scenarios.

Task 4.2 Policy, Procedures, Training Standards, and Staffing Practices

Technical Task 4.2 establishes a framework to harmonize agency policies, operational procedures, training standards and certifications, and staffing and deployment practices across RFD, SFD, and TMFPD, with national standards — the National Fire Protection Association (NFPA) 1710/1720/1750 series, the National Incident Management System (NIMS), Occupational Safety and Health Administration (OSHA) regulations, and International Association of Fire Chiefs (IAFC)/International Association of Fire Fighters (IAFF) guidance — serving as reference points locally adapted to available funding, operational realities, and community risk profiles.

A: Formalize the Regional Standard Operating Guideline (SOG) Committee

- Issue a formal charter with decision rights, policy hierarchy, and change-control procedures, and assign dedicated administrative support.
- Confirm the executed November 2025 Regional SOGs as anchor standards and define how local SOGs relate to them in multi-agency operations.
- Interlock all SOG adoptions with Vector Solutions delivery and hands-on training — no SOG is complete until trained across all three agencies.
- Establish minimum regional standards for Immediately Dangerous to Life or Health (IDLH) accountability (passport/PAR/entry-exit reporting) and plain-language communications conventions as priority early Committee outputs.

B: Complete the SOG Development Pipeline

- Complete Mayday/RIC and Structure Fire SOGs as immediate next outputs; advance the pipeline: Motor Vehicle Accident (MVA) Multi-Company Operations High Rise (RFD leads) Wildland (TMFPD leads).
- Formalize a tiered policy model in which regional minimum standards govern multi-agency operations and agency supplements address local needs.

C: Establish a Regional Policy Hierarchy and Resolve Legacy Drift

- Publish an explicit hierarchy: regional SOGs govern multi-agency incidents; agency SOGs govern internal single-agency operations.
- Identify and supersede legacy governance documents that conflict with current operating plans and Standards-of-Cover-driven deployment expectations.

- Establish a unified dispatch policy workgroup before Hexagon goes live to align response levels, AVL utilization, cancellation criteria, and boundary-drop rules; adopt cross-boundary closest-unit response as the explicit long-term deployment goal.

D: Establish a Regional Training Committee and Joint Academy

- Form a Regional Training Committee with representation from all three agencies, inclusive of labor, to own the regional training calendar and shared curriculum standards.
- Conduct a governance review of Regional Public Safety Training Center (RPSTC) access and cost-sharing as a precondition, and launch a joint recruit academy on a generalized, non-agency-specific curriculum.
- Pursue a consolidated or federated Vector Solutions instance for cross-agency certification visibility and activate a joint promotional testing process.

E: Expand the Hazardous Materials (HAZMAT) Triad Model and Implement a Regional Training Matrix

- Launch joint Water Rescue (WET) team training under the HAZMAT model — monthly joint training, shared SOGs, shared certification minimums — followed by Technical Rescue, as no comparable structure currently exists for either.
- Publish a regional role-based training matrix aligned with NIMS Implementation Objectives, prioritizing interoperability and cost containment.
- Develop shared task books and minimum qualifications for Engineer, Captain, and Battalion Chief, with shared evaluators and a joint preparatory academy program.
- Implement credential recognition consistent with NIMS Mutual Aid guidance.

F: Define and Fund the Pathway to 4-Person Staffing

- Include the cost of bringing all company level apparatus to 4-person staffing as a defined endpoint in the regionalization financial model, beginning with upstaffing of aerial and truck companies as the priority first step, where the operational safety case is strongest. The increased staffing should be based on call demographics, community risk, and population density.
- Demonstrate how consolidated economies of scale — reduced command overhead, shared floater pools, optimized station distribution — offset incremental staffing costs.

- Frame the decision correctly for governing bodies: staffing parity is a capital budget decision, not a labor negotiation.

G: Harmonize Deployment, Readiness, and Response Standards

- Establish a unified readiness framework: in-service/out-of-service triggers, minimum crew assumptions, and vacancy fill/backfill rules.
- Standardize response time benchmarks at the 90th percentile with consistent AVL-based measurement methodology across all three agencies as a prerequisite for regional Standards of Cover development.
- Develop options for phased staffing integration compatible with the financial sustainability models under this engagement: interoperability-first → targeted integrated deployment → phased staffing integration. In addition to the aforementioned, expand and or enhance Mutual Aid Agreements with regional partners at all levels (local, state and national).

Task 4.3 Equipment and Resource Standardization

Technical Task 4.3 addresses equipment and resource standardization for RFD, SFD, and TMFPD, encompassing a data collection review of asset inventories, procurement cycles, and maintenance practices; benchmarking against NFPA and FEMA/NIMS guidance; a procurement and replacement policy review; and integration with Task 3 financial modeling.

- Establish a Regional Fleet Readiness and Equipment Standardization Initiative with a three-body governance structure: a Regional Fleet & Equipment Steering Committee (chiefs/designees, fleet managers, finance officers — policy approval, annual workplan, cost-share and Interlocal Agreement (ILA) decisions, budget oversight); a Technical Fleet & Equipment Working Group (shop leads/EVTs, operations representatives, logistics coordinators — regional standards, Out of Service (OOS) thresholds, inspection taxonomy, Preventative Maintenance (PM) triggers, procurement specifications); and a Fiscal/Legal/Procurement Subgroup (finance, legal counsel, procurement officers — contracts, joint solicitations, liability and insurance provisions, cost allocation).
- Direct the Technical Fleet & Equipment Working Group to develop a Regional NFPA Fleet Standards Package as an early deliverable — establishing unified out-of-service thresholds and PM triggers (NFPA 1911), aerial testing governance (NFPA 1914), and a consolidated PM program document (NFPA 1915) — using the most fully developed existing agency model as the regional baseline.

- Adopt a regional readiness definition set and minimum inspection checklist so each agency's existing documentation system feeds a shared regional readiness picture without requiring platform change.
- Establish a formal shared reserve program with standardized reserve-to-front-line ratios and clear designation criteria to reduce inefficiency and eliminate redundant reserve apparatus.
- Advance Self-Contained Breathing Apparatus (SCBA) cylinder pressure standardization: fund and schedule SFD's fill infrastructure upgrade — exploring Assistance to Firefighters Grant (AFG) grant funding — and establish a timeline for RFD's full conversion.
- Pursue joint procurement first for the three highest-readiness categories: SCBA fill infrastructure (AFG grant pathway), Personal Protective Equipment (PPE) (synchronized 10-year replacement cycles, with potential per-unit savings of 10–20% typical for consolidated purchasing at this scale), and shared aerial testing services.
- Adopt standards-based procurement clauses for all major equipment acquisitions: interoperability with the regional standard, open data export to the minimum asset record standard, and sustainment documentation requirements.
- Conduct a feasibility study for a regional fleet maintenance consortium using a two-hub model, and resolve Knox-box incompatibility across the three agencies as a near-term, low-cost prerequisite for shared reserve deployment.
- Create a regional lifecycle framework with standard apparatus classes and typing, life-stage definitions (first-out/reserve/retire), and an annual evaluation cycle; align replacement schedules across agencies where cycles approach simultaneously (RFD 10-year, SFD 15-year, and TMFPD 13-year frontline cycles) to enable coordinated procurement.
- Integrate standardization cost savings and funding strategies directly with Task 3 financial modeling, including per-unit cost reduction estimates for joint PPE and SCBA procurement, avoided capital costs from reserve fleet right-sizing, and AFG grant offsets for SCBA infrastructure.

Task 4.4 Dispatch Services Evaluation

Technical Task 4.4 evaluates the region's fragmented multi-Public Safety Answering Point (PSAP) dispatch environment and recommends a phased strategy — beginning with technical and policy integration and progressing toward structural consolidation —

with the ultimate goal of establishing a single Regional Fire & EMS Dispatch Center serving Reno, Sparks, TMFPD, and Regional Emergency Medical Services Authority (REMSA) as a unified secondary PSAP for all fire and medical emergencies in Washoe County.

Immediate Phase — Virtual Consolidation via Technology and Policy

- Implement a real-time CAD-to-CAD data-sharing interface among all existing PSAP systems to reduce or eliminate call transfers and redundant data entry, pending full Hexagon deployment.
- Set a hard deadline for HxGN OnCall go-live and accelerate remaining preparations; define elimination of dual-dispatch delays and phone-based coordination as explicit Phase 1 success metrics.
- Establish a multi-agency Dispatch Policy Workgroup (RFD, SFD, TMFPD, REMSA, and Washoe County) with binding decision-making authority, modeled on the regional SOG Committee, to fast-track unified protocols for AVL-based closest-unit dispatch, standardized response-level classifications, cancellation protocols, and PSAP transfer procedures — ideally completed before Hexagon goes live. Article 5.2 of the 2026 REMSA franchise amendment, which commits REMSA to Hexagon Manager's Board participation and consistent regional call-taking processes, should be fully enforced in support of this workgroup.
- Cross-train dispatch personnel and conduct joint simulation exercises so dispatchers in any center can handle other centers' calls under common protocols; develop common call-taking scripts, ensure full use of the Medical Priority Dispatch System (ProQA) for EMS calls, and adopt uniform incident-type coding and terminology.
- Formalize and expand the tentative closest-unit dispatch agreement already piloted among the fire agencies (Engine, Brush Unit, or Battalion Chief dispatch to certain high-priority calls regardless of jurisdiction) into written regional policy, with a timeline to extend it to additional resource types (including Truck companies) and additional geographic areas beyond the initial pilot zones.
- Develop a unified regional performance-measurement framework: adopt common definitions for key response intervals across all agencies, build a consolidated end-to-end performance dashboard, and designate a Regional Data Governance group (REMSA, each dispatch center, and each fire agency) to establish data-sharing procedures, a standard linked incident ID, and documentation of AVL and dispatch logic configurations.

Secondary Phase — Establish a Regional Dispatch Center

- Establish a new Regional Fire-EMS Dispatch Center through an expanded intergovernmental agreement (EIA) among Reno, Sparks, TMFPD, and REMSA defining ownership, governance, funding, and operational responsibilities, with board representation and cost-sharing apportioned equitably (e.g., by call volume or population served).

- Build on the existing Hexagon Manager's Board and Executive Board as a foundation for the EIA's oversight structure and address legal and contractual considerations — including harmonizing the REMSA franchise agreement's accelerated review provisions with the EIA's implementation timeline. w

Final Phase — Unified Regional Fire/EMS Dispatch Operations

- Build out and operationalize a fully unified regional dispatch center (a single facility or a network of virtualized centers acting as one) serving as the countywide secondary PSAP for all fire and medical 9-1-1 calls, dispatching the closest appropriate unit — fire or ambulance — unconstrained by jurisdictional boundaries, using interoperable radio systems including a countywide fire/EMS dispatch channel and shared tactical channels.

Task 5 Service Delivery Equity Analysis

Technical Task 5 evaluates whether fire and emergency response performance varies across census tracts, jurisdictions, and vulnerable-population indicators for RFD, SFD, and TMFPD, using tract-level response data, demographic indicators, proposed unified regional response-time standards, Federal Emergency Management Agency (FEMA) National Risk Index context, station proximity, repeat-location screening, and cross-jurisdictional review.

- The analysis does not support a broad conclusion that vulnerable populations uniformly receive slower fire response across Washoe County. It does identify specific geographies where vulnerable populations, below-standard performance, boundary conditions, repeat demand, growth patterns, and hazard exposure overlap; these overlap areas are the most defensible focus for follow-up review, particularly where delayed response may affect children, older adults, low-income households, residents with language or transportation barriers, renters, mobile-home residents, or medically vulnerable households.

- Cross-jurisdictional boundary areas warrant formal closest-unit and boundary review, particularly the North Valleys/Lemmon Valley interface, the Sun Valley/north Reno/Sparks/Truckee Meadows interface, the Southeast Reno/Foothill

edge, Hidden Valley and Donner Springs, Verdi/Mogul and West Reno, and east Sparks/Spanish Springs

- especially where a vulnerable tract has below-standard performance and a nearby station from another agency appears closer by straight-line distance.
- Station-proximity screening alone is not a sufficient operational measure; future analysis should use road-network drive time and CAD station-of-origin data where available, since delayed response in tracts close to a station by map distance may be driven by unit availability, call concurrency, road-network design, or repeated demand rather than distance.
- Repeat-incident locations require operational distinction between true repeat-demand locations (e.g., senior housing, assisted-living facilities, mobile-home parks, schools, commercial centers) — which may warrant facility engagement, access improvements, or targeted prevention — and geocoding artifacts or duplicate records, which require data correction before operational conclusions are drawn.
- Four recurring operational drivers should guide follow-up: EMS-heavy demand (fire response equity cannot be separated from EMS system status, REMSA coordination, and hospital offload); inconsistent response performance during periods of system strain (unit availability, overlapping calls, limited move-up coverage) rather than uniformly slow average travel; boundary and closest-unit alignment in edge areas; and localized access and repeat-location patterns (roadway design, gated access, address visibility) that are often addressable through targeted interventions.
- Pair community-risk-reduction strategies with operational review, including multilingual alerts and preparedness materials; outreach to schools, senior housing, assisted living, and mobile-home parks; fall-prevention and EMS repeat-demand review; address visibility and access improvements; and coordinated evacuation/sheltering plans for residents with limited transportation or mobility.
- Adopt the proposed unified regional response-time standards (distinguishing urban, suburban, and rural/WUI travel and total-response expectations, evaluated at 90 percent reliability) as the common measurement framework needed to track equity outcomes going forward, recognizing that this is a screening-level analysis whose findings identify where additional CAD-level and operational review is warranted before agencies make final deployment, dispatch, station-siting, automatic-aid, or consolidation decisions.

Task 6 Washoe Fire Service Realignment Transition Plan

Technical Task 6 establishes an actionable transition pathway that implements the near-term governance direction identified in Task 4.1, operationalizes the policy, training, staffing, and dispatch findings identified in Task 4.2, and incorporates the equipment and resource standardization priorities identified in Task 4.3.

- Implement a phased, two-track pathway: Track 1 — the Washoe Fire Service Realignment Plan — provides an immediate regional governance and standards platform (aligned resolutions, a Regional Fire Reorganization Commission, a Management Council of fire chiefs, and formal work groups); Track 2 concurrently prepares two longer-term governance packages — an expanded interlocal agreement for limited-purpose shared services, and a Metropolitan Washoe Fire Authority for full consolidation — for presentation in a 24-month decision package.
- Organize implementation across eight work streams, each with assigned ownership, deliverables, and milestones: Governance and Legal; Operations, Dispatch, and Deployment; Regional SOGs and Training; Data, Performance, and Standards of Cover; Equipment, Fleet, and Procurement; Finance and Capital Planning; Labor and Personnel Transition; and Public Communication and Stakeholder Engagement.
- Sequence implementation through five phases: Phase 1A (0–3 months) Launch and Governance Formation; Phase 1B (3–6 months) Work Group Activation and Early Implementation; Phase 1C (6–18 months) Operational Standardization and Pilot Implementation; Phase 2 (18–24 months) Evaluation and Decision Package; and Phase 3 (24–48 months) Post-Decision Implementation.
- At approximately month 24, present a decision package to the Regional Fire Reorganization Commission comparing the current-state model, continued Realignment Plan, an expanded interlocal agreement shared-services model, and the Metropolitan Washoe Fire Authority model — including performance results, a financial model, a legal framework, a labor/personnel framework, service-level commitments, EMS integration conditions, public accountability measures, and a clear Commission recommendation.
- Complete a defined set of first-90-day actions (adopt governing-body resolutions; seat the Commission; establish the Management Council; approve work-stream charters; approve a public communication plan; authorize the Regional Fleet Readiness and Equipment Standardization Initiative; begin the dispatch/run-card/AVL gap inventory) as the foundation for the subsequent months 3–6, 6–18, and 18–24 implementation milestones.

- The preferred immediate course is to implement the Washoe Fire Service Realignment Plan now, while preparing both the expanded interlocal agreement shared-services package and the Metropolitan Washoe Fire Authority package for the 24-month decision point — producing near-term regional improvement, reducing implementation risk, and preserving a complete, actionable basis for selecting the next level of regional fire service governance.

Task 7 EMS Operations and Integration Analysis

Technical Task 7 (incorporating Tasks 7.1 through 7.3) presents the integrated EMS analysis for the region's co-response system involving RFD, SFD, TMFPD, and REMSA Health, read in conjunction with the 2026 REMSA Amended and Restated Franchise Agreement and the EMS Oversight Interlocal Agreement.

Priority 1 — Immediate

- Establish a unified dispatch policy workgroup (RFD, SFD, TMFPD, REMSA, Washoe County) with binding — not merely advisory — policy authority, before Hexagon goes live, modeled on the Regional SOG Committee.
- Establish a unified regional EMS-fire performance framework with common interval definitions, linked incident identifiers across CAD systems, and a dashboard built around end-to-end system performance and zone-level metrics as required by the 2026 franchise.
- Validate 2026 franchise implementation requirements — Articles 2.4 (bi-annual medical director coordination), 5.1 (800 MHz access), 5.2 (Hexagon board participation), and 12.2 (Intermediate Life Support (ILS) quarterly reporting) — and confirm whether required reports are being produced in usable form.
- Jointly develop written patient care handoff and cancellation criteria (when fire continues as primary Advanced Life Support (ALS) provider; when REMSA assumes primary care authority; when fire units may release; when cancellation is appropriate by priority and call type), incorporated into regional protocols with simultaneous sign-off by all medical directors and joint-simulation training within 90 days.
- Formalize and expand the existing Joint Advisory Committee (JAC) into a Regional EMS Operations Committee with binding authority to adopt policies, approve protocol changes, and oversee Quality Assurance / Quality Improvement (QA/QI), structured around five standing sub-committees: Executive, Operational, Clinical, Data, and Workforce.

- Address the dissolution of the Pre-Hospital Medical Advisory Committee (PMAC) by designating an interim regional protocol governance authority — convening all agency medical directors and Northern Nevada Public Health (NNPH) EMS Oversight staff — pending formal establishment of the Regional EMS Operations Committee.

Priority 2 — Near-Term

- Appoint a regional medical director (single or co-directorship) as protocol authority for all fire-based ALS operations and REMSA, replacing the dissolved PMAC's governance function.
- Establish a formal joint QA/QI program — a regional EMS Quality Improvement Committee with representation from all four agencies and Northern Nevada Public Health
- supported by a Health Insurance Portability and Accountability Act (HIPAA)-compliant data-sharing agreement, focused initially on high-acuity call types (cardiac arrest, stroke, major trauma); develop a regional paramedic training pipeline to sustain ALS expansion.
- Quantify fire-unit commitment time and ILS ride-along frequency using Article 12.2 quarterly ILS reports as the baseline dataset, and negotiate with REMSA medical direction to define call types where ILS deployment to ALS-active scenes should instead trigger ALS unit dispatch.

Priority 3 — Mid-Term

- Migrate toward a shared or Application Programming Interface (API)-integrated ePCR platform (fire agencies use ESO Solutions (ESO); REMSA uses ImageTrend), implementing a minimum shared data dictionary and API-based exchange to resolve the cardiac-monitor data-transfer problem, and evaluate feasibility of a single shared platform.
- Develop and test a formal integration-options continuum — including a fully boundary-dropped dispatch model, expansion of the Limited Response Zone (LRZ) sub-contract model, and an enhanced alliance model — positioned for the July 2029 REMSA franchise language review (accelerated to within six months of any fire agency consolidation under Article 2.6(c)).
- Commission a joint EMS financial analysis addressing REMSA uncompensated care, GEMT reimbursement flows to all three fire agencies, the Nevada Senate Bill (SB) 424 provider assessment tax, and total system EMS expenditure across all agencies, as this analysis is needed before integration options can be realistically evaluated.

Task 8 Public Sector Insurance Environment

Technical Task 8 evaluates the current public-sector insurance environment for RFD, SFD, and TMFPD (Part 1) and the potential private-sector property-insurance implications of regional consolidation for residential and commercial property owners in the study area (Part 2), based on audited financial statements, public risk disclosures, and Nevada Division of Insurance (DOI) market data.

Part 1 — Public Sector Insurance Environment: Key Recommendations

Before any consolidation decision, the agencies should complete a fire-specific insurance and claims inventory, ring-fence legacy liabilities by originating entity, obtain broker/carrier review of the proposed governance model, and produce a single schedule showing every station, apparatus item, lessor, lender, deductible, excess layer, and loss history entry. During transition, they should use a written insurance matrix covering employer-of-record, named-insured status, additional-insured requirements, claims reporting, and responsibility for pre-effective-date occurrences. After implementation, the preferred end-state is a formal regional risk-management function with unified claim reporting, annual property valuations, a common incident-review process, and a deliberate decision on whether the new entity will start as a more commercially insured program or move toward a higher-retention public-entity model once its own loss experience is credible.

- Critical, before decision: build a single fire-specific policy and claims inventory for all three agencies (finance and risk management, with broker support), since public sources do not disclose enough detail to price or allocate risk accurately.
- Critical, before decision: ring-fence all pre-effective-date liabilities by originating entity (legal, finance, and actuary), given that Reno and TMFPD carry materially different legacy workers' compensation structures.
- Critical, before decision: obtain five-year fire-only loss runs by line (workers' compensation, general liability, auto, property, employment practices liability) to move from balance-sheet proxies to actual underwriting evidence.
- Critical, before decision: develop a schedule of values for every station, apparatus item, leased asset, and specialty unit, since public sources disclose capital proxies rather than insured replacement cost.
- High priority, before decision: run a carrier/broker underwriting review of each regionalization scenario to test market appetite, deductible tolerance, and continuity issues.

- Critical, during transition: adopt a transition insurance matrix for named insureds, additional insureds, claim reporting, and workers' compensation responsibility, since partial transitions create the highest ambiguity risk.
- High priority, during transition: preserve retroactive dates and secure any required runoff or tail arrangements, and harmonize incident reporting, driver qualification, apparatus maintenance records, and return-to-work practices across agencies.
- High priority, post-implementation: start the regional entity on a conservative initial risk-financing model, and establish annual property valuation and catastrophe-limit review, particularly since TMFPD already discloses catastrophe sublimits while Reno and Sparks do not publicly do so.

Part 2 — Private Sector Insurance Implications: Recommendations for Protecting and Improving Insurance Outcomes

Consolidation would not, by itself, improve insurance outcomes simply because governance changed; the insurance effect depends on whether consolidation produces documented gains in emergency communications, suppression deployment, water-supply coordination, fire prevention and inspections, and community wildfire-risk reduction, without transition-related service degradation.

- First, commit formally that no merger-induced degradation will occur in first-due suppression coverage for Wildland–Urban Interface (WUI) and edge-growth zones unless replacement capacity is in service first, since the study area's wildfire-related insurance stress is already concentrated in Washoe County and in specific Reno-area ZIP codes.
- Second, create a single, regionwide community risk-reduction and wildfire-mitigation platform unifying defensible-space inspections, green-waste programs, home-hardening outreach, Community Connect enrollment, and participation in Firewise USA, Fire Adapted Community, and Ready, Set, Go! — pathways the Nevada DOI incentive program recognizes for expedited personal-lines discounts.
- Third, establish an insurer-and-broker support function that maintains current maps of service territory, station locations, dispatch arrangements, suppression capabilities, inspection and code-enforcement practices, and wildfire-mitigation initiatives, packaged for underwriters.
- Fourth, produce a unified water-supply assurance program with the regional water utility Truckee Meadows Water Authority (TMWA) covering hydrant testing, fire-flow records, redundancy planning, outage notification, and capital prioritization for high-risk interface zones.

- Fifth, track insurance outcomes — Insurance Services Office (ISO) classification, DOI wildfire data-call results, ZIP-code-level insurer participation, and voluntary mitigation-discount usage — as a formal post-consolidation performance measure, so that a regional merger is not declared operationally successful while remaining insurance-neutral.

Current public ISO Public Protection Classification scores and department-level, fire-only loss-run data were not identifiable in the materials reviewed and represent decision-relevant data gaps; a final consolidation decision intended to improve insurance performance should be accompanied by a technical due-diligence package covering these metrics before and after implementation.

Next Steps

The Study Team looks forward to discussing these preliminary, task-by-task recommendations with the Board and with individual agency, labor, volunteer, and dispatch leaders at the Mid-Project Internal Stakeholder Workshop. Workshop input, including consensus items and follow-up actions, will be documented in the Mid-Project Progress Report and used to refine the recommendations above as the Study advances.

Appendix Legend

Appendix	Title
Appendix 2A	Jurisdictional, Governance, and Interagency Response Environment
Appendix 2B	Fire Station Inventory and Facility Condition Assessment
Appendix 2C	Emergency Medical Services System Profile and Performance Detail
Appendix 2D	Prior Studies Review, Recommendation Tracking, and Gap Assessment
Appendix 2E	GIS Analysis, Modeling Outputs, and Required Products
Appendix 2F	Data Validation, Performance Metrics, and Confidence Assessment
Appendix 2G	Community Profile, Demographics, and Growth Analysis
Appendix 2H	Comparative Systems and Case Study Analysis (Southern Nevada Model)
Appendix 2I	NFPA 1710, NFPA 1720, and NFPA 1750 Comparative Framework
Appendix 2J	Response Time Standards and Performance Measurement Framework
Appendix 2K	Apparatus Staffing and Operational Deployment Requirements
Appendix 2L	Volunteer and Demand Zone Assembly Model
Appendix 2M	EMS System Performance and Integration Plan
Appendix 2N	Response Performance Normalization, Agency Goal Crosswalk, and Unified Standard Support
Appendix 2O	Data Governance, Validation, and NERIS Compliance Framework
Appendix 2P	Wildland–Urban Interface Risk Assessment and Regional Integration Roadmap
Appendix 2Q	Summary of Prior Studies, Findings, and Implementation Status
Appendix 2R	Regional Fire Service Implementation and Transition Roadmap

Acronym List

Acronym	Meaning
AFG	Assistance to Firefighters Grant
AHJ	Authority Having Jurisdiction
ALS	Advanced Life Support
API	Application Programming Interface
AVL	Automatic Vehicle Location
BLM	Bureau of Land Management
BLS	Basic Life Support
CAD	Computer-Aided Dispatch
CJIS	Criminal Justice Information Services
CPSM	Center for Public Safety Management
CRR	Community Risk Reduction
CTAX	Consolidated Tax
CWPP	Community Wildfire Protection Plan
DOI	Nevada Division of Insurance
ECC	Emergency Communications Center
EIA	Expanded Intergovernmental Agreement
EMS	Emergency Medical Services
ERF	Effective Response Force
ESO	ESO Solutions (electronic patient care reporting platform)
FEMA	Federal Emergency Management Agency
FPD	Fire Protection District
GEMT	Ground Emergency Medical Transport
GIS	Geographic Information System
HAZMAT	Hazardous Materials
HIPAA	Health Insurance Portability and Accountability Act
IAFC	International Association of Fire Chiefs
IAFF	International Association of Fire Fighters
IC	Incident Commander
IDLH	Immediately Dangerous to Life or Health
ILA	Interlocal Agreement
ILS	Intermediate Life Support
ISO	Insurance Services Office
JAC	Joint Advisory Committee

Acronym	Meaning
LRZ	Limited Response Zone
MOU	Memorandum of Understanding
MVA	Motor Vehicle Accident
NERIS	National Emergency Response Information System
NFPA	National Fire Protection Association
NIMS	National Incident Management System
NNPH	Northern Nevada Public Health
NRS	Nevada Revised Statutes
OOS	Out of Service
OSHA	Occupational Safety and Health Administration
PAR	Personal Accountability System
PM	Preventative Maintenance
PMAC	Pre-Hospital Medical Advisory Committee
PPE	Personal Protective Equipment
PSAP	Public Safety Answering Point
QA/QI	Quality Assurance / Quality Improvement
REMSA	Regional Emergency Medical Services Authority
RFD	Reno Fire Department
RIC	Rapid Intervention Crew
RMS	Records Management System
RPSTC	Regional Public Safety Training Center
SB	Senate Bill
SCBA	Self-Contained Breathing Apparatus
SFD	Sparks Fire Department
SOC	Standards of Cover
SOG	Standard Operating Guideline
TMFPD	Truckee Meadows Fire Protection District
TMWA	Truckee Meadows Water Authority
UHU	Unit Hour Utilization
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
WUI	Wildland–Urban Interface

APPENDICES

APPENDIX 2A: JURISDICTIONAL, GOVERNANCE, AND INTERAGENCY RESPONSE ENVIRONMENT

Purpose

This appendix describes the jurisdictional framework, governance structure, and interagency response environment that shape fire and emergency service delivery within Washoe County. It is intended to support the system-level analysis contained in the main body of this report by identifying the agencies, authorities, land management conditions, and operational interfaces that influence emergency response, deployment, coordination, and long-range planning.

This appendix should be read in conjunction with the main report sections addressing system governance, deployment, dispatch, and regionalization modeling.

Governance and Public Safety Operating Environment

Washoe County functions within a multi-jurisdictional public safety environment that includes county government, incorporated municipal governments, special district fire service delivery, tribal lands, and large areas of federally managed land. As a result, fire and emergency service delivery in the region does not operate as a single integrated system under one authority, but rather as a collection of independently governed agencies that must routinely function together operationally.

Washoe County operates under a commission–manager form of government, with policy authority vested in a five-member Board of County Commissioners. Within the county are the incorporated cities of Reno and Sparks, each of which operates under a council–manager form of government. Fire and emergency services are delivered through a combination of municipal fire departments and a county fire protection district, each with distinct governance structures, budget processes, administrative systems, labor environments, and service responsibilities.

This governance structure creates a response system that is operationally interdependent but administratively fragmented. That distinction is important. Incidents do not recognize jurisdictional boundaries, yet funding, staffing, dispatch pathways, capital planning, and policy authority remain largely tied to those boundaries.

Jurisdictional Fire Service Delivery Structure

Within the study area, primary all-hazard fire and emergency response is provided by three principal local agencies:

- City of Reno Fire Department
- City of Sparks Fire Department
- Truckee Meadows Fire Protection District

Each agency is responsible for service delivery within its designated geographic and governance boundaries. However, the operational environment requires regular cross-boundary support through mutual aid, automatic aid, coordinated special operations response, and major incident management.

Operationally, these agencies function within a shared hazard environment that includes urban density, suburban growth, wildland–urban interface (WUI) exposure, interstate and rail corridors, industrial and commercial occupancies, special events, tribal lands, and extensive open space and federally managed lands.

Accordingly, the effectiveness of the overall system depends not only on agency-specific performance, but also on the quality of interagency coordination and the ability to assemble resources rapidly across jurisdictional boundaries.

Why Jurisdictional Boundaries Matter

Jurisdictional boundaries remain important because they shape how agencies are funded, governed, staffed, dispatched, and held accountable. These boundaries influence:

- Station sitting and deployment decisions
- Capital improvement priorities
- Apparatus placement and staffing models
- Dispatch and communications systems
- Labor agreements and staffing flexibility
- Administrative and command structures
- Budget authority and financial planning
- Performance expectations and reporting practices

However, while these boundaries define administrative authority, they do not reflect how incidents unfold in the field. In practice, emergency incidents often require multi-agency response, shared command, interoperable communications, and rapid resource movement across city, district, tribal, and federal interfaces.

This is one of the central structural realities of the Washoe County fire service environment: the region functions operationally as a system, even though it is not governed or managed as a single system.

Federal Land Jurisdiction and Wildland Coordination Environment

A substantial portion of Washoe County consists of federally managed land. This condition has direct implications for fire protection planning, mutual aid, incident complexity, and interagency command.

The Bureau of Land Management (BLM) manages approximately 2.67 million acres within Washoe County, representing a majority of the county's land area. Additional lands are managed by the U.S. Forest Service (USFS) and the U.S. Fish and Wildlife Service (USFWS). These lands create a large and persistent wildland and WUI operational environment that overlaps local government response areas and requires coordinated suppression and incident management.

Bureau of Land Management

The Bureau of Land Management maintains significant wildland fire suppression capability within the Carson City District, including engines, hand crews, dozers, and aviation coordination resources. BLM plays a major role in initial attack, extended attack, and WUI incident support throughout large portions of Washoe County.

From a local government perspective, the presence of BLM-managed land means that many incidents involve not only local fire suppression activity, but also interagency coordination related to jurisdiction, command authority, resource ordering, and wildland-specific operational doctrine.

U.S. Forest Service

The U.S. Forest Service provides wildland fire protection and suppression resources within the Humboldt–Toiyabe National Forest and other federally managed lands affecting the Washoe County operational area. USFS resources may include engines, hand crews, overhead personnel, and aviation support.

Where incidents originate on or threaten federal land, local agencies must often operate under interagency command structures and shared operational frameworks. This adds complexity to command transitions, cost tracking, communications planning, and incident management.

U.S. Fish and Wildlife Service

The U.S. Fish and Wildlife Service manages the Sheldon National Wildlife Refuge in northern Washoe County and participates in fire suppression and land management coordination through interagency agreements.

Although the refuge does not drive the same volume of interaction as BLM or USFS lands, its inclusion further illustrates the layered land management and response environment that exists across the county.

Tribal Lands and Response Environment

Tribal lands represent another important jurisdictional component of the Washoe County emergency response environment. Tribal governments are sovereign entities, and emergency response coordination involving tribal lands requires not only operational interoperability but also recognition of separate governance authority and mutual aid relationships.

Pyramid Lake Paiute Tribe

The Pyramid Lake Paiute Tribe Reservation encompasses approximately 475,000 acres, including Pyramid Lake and portions of the Truckee River corridor. The Tribe maintains its own fire and emergency response capability and coordinates with neighboring agencies through mutual aid and interagency response relationships.

The scale and location of the reservation create operational considerations related to travel distance, wildland fire exposure, access, and command coordination during multi-jurisdiction incidents.

Reno-Sparks Indian Colony

The Reno-Sparks Indian Colony maintains tribal lands within and adjacent to the Reno and Sparks metropolitan area, including the Hungry Valley community. Because of the proximity of tribal lands to urban and suburban development, coordinated response between tribal and local agencies is operationally significant.

These interface areas reinforce the need for clear dispatch pathways, interoperable communications, and established command integration procedures.

Dispatch and Interagency Coordination Environment

Dispatch and communications coordination are among the most important operational variables in a multi-agency fire service system. In Washoe County, local fire agencies do not function under a single fully integrated dispatch model. Instead, the county operates within a multi-dispatch environment involving local public safety answering points, EMS-related dispatch interfaces, and federal interagency wildland coordination systems.

This operating environment creates both strengths and limitations. It allows agencies to maintain local control and existing organizational alignment, but it also introduces friction in several areas, including:

- Call processing and routing
- Closest-unit response implementation
- Boundary-drop or cross-jurisdiction dispatching
- Resource ordering and strike team coordination
- Major incident escalation and support requests
- Common operating picture development
- Systemwide performance measurement

Operationally, dispatch fragmentation can result in delayed unit assignment near jurisdictional borders, inconsistent call processing pathways, and reduced visibility into true regional workload and response performance. These are not simply technical issues. They are structural system design issues with direct implications for service reliability and regional efficiency.

Operational Implications for System Performance

The Washoe County fire service environment is defined by overlapping jurisdictions, separate governance authorities, varied dispatch structures, and shared hazard exposure. These conditions have several important operational implications.

First, they require a high degree of interagency coordination for routine and major incidents alike. Effective response depends on the ability of multiple agencies to operate under compatible command, communications, and resource management frameworks.

Second, they complicate systemwide performance measurement. Because agencies operate under different governance and dispatch structures, the region does not naturally function with one shared set of performance definitions, deployment assumptions, or accountability mechanisms.

Third, they create structural barriers to full optimization of regional deployment. Even where agencies are physically close enough to support one another efficiently, governance boundaries and dispatch architecture may prevent the most effective resource assignment.

Fourth, they increase the importance of formal agreements, shared training, and operational doctrine. In a fragmented system, interoperability is not optional. It is the mechanism by which the system remains functional.

These realities do not mean the current environment is unworkable. They do mean that regional performance improvement will depend either on significantly stronger integration mechanisms or on some form of structural regionalization.

Conclusion

Washoe County's fire and emergency response environment is best understood as a multi-jurisdictional, interdependent operating system rather than a single unified organization. Governance, funding, and service responsibility remain tied to separate local, district, tribal, and federal authorities, while operational success depends on the ability of those entities to function together under real-world incident conditions.

This jurisdictional and governance structure is a defining feature of the Washoe County fire service environment and should be considered foundational to any discussion of deployment, dispatch, regional coordination, performance improvement, or future governance options.

Table 2A-1 – Fire Service Governance and Service Delivery Structure

Agency	Governance Model	Primary Service Area	General Service Role	Key Operational Interface
Reno Fire Department	Municipal fire department under City of Reno	City of Reno	Urban all-hazard fire, EMS, rescue, special operations	Interfaces with Sparks, TMFPD, REMSA, and regional dispatch partners
Sparks Fire Department	Municipal fire department under City of Sparks	City of Sparks	Urban/suburban all-hazard fire, EMS, rescue	Interfaces with Reno, TMFPD, and local dispatch systems
Truckee Meadows Fire Protection District	County fire protection district	Unincorporated Washoe County	Suburban, rural, and WUI fire and EMS response	Interfaces with Reno, Sparks, REMSA, and federal wildland partners
Federal Agencies	Federal land management and suppression authorities	Federal lands throughout Washoe County	Wildland fire suppression, aviation, extended attack support	Interfaces with local agencies under interagency agreements
Tribal Fire / Emergency Services	Tribal governance authority	Tribal lands within Washoe County	Fire, emergency response, and local coordination	Interfaces with local agencies through mutual aid and unified command

Table 2A-2 – Dispatch and Coordination Environment

Component	Current Condition	Operational Effect	Planning Implication
Local Fire Dispatch	Multiple dispatch pathways by agency	Variable call handling and unit notification	Limits seamless systemwide dispatch
EMS / Medical Interface	Dependent on EMS and regional transport relationships	Affects call processing and field coordination	Requires alignment with fire response planning
Federal Interagency Dispatch	Separate but coordinated wildland resource ordering environment	Effective for wildland incidents but operationally distinct from local structural response	Requires strong interface procedures
Multi-Agency Incident Coordination	Regular requirement during large or cross-boundary incidents	Increases need for interoperable command and communications	Supports case for greater system integration
Closest Unit / Boundary Flexibility	Limited by governance and dispatch architecture	May delay optimal resource assignment in edge areas	Central issue for regional deployment modeling

APPENDIX 2B – FIRE STATION INVENTORY AND FACILITY CONDITION ASSESSMENT

Purpose of Appendix

This appendix provides a detailed inventory of fire stations within the participating agencies and summarizes facility condition, age, and operational considerations. This information supports the deployment and coverage analysis contained in the main body of the report.

Regional Station Inventory Overview

The Truckee Meadows fire service system operates a total of 32 fire stations distributed across Reno, Sparks, and Truckee Meadows Fire Protection District. Station distribution reflects historical development patterns and varies significantly between urban and suburban or rural environments.

City of Reno Fire Stations and Facility Conditions

The Reno Fire Department operates a system of 15 stations ranging in age from approximately 1960 to 2008. The system reflects a mix of modern facilities, mid-life stations, and legacy infrastructure.

The station system can be categorized into three general tiers.

Modern Stations

Stations constructed in the mid-2000s generally reflect current design standards and operational requirements. These facilities are in good condition and require minimal capital investment beyond routine maintenance.

Mid-Life Stations

Stations constructed in the 1980s represent the majority of the system and require ongoing capital reinvestment. These facilities are generally functional but exhibit aging systems, deferred maintenance, and increasing lifecycle costs.

Legacy Stations

Stations constructed in the 1960s and early 1970s present the most significant challenges. These facilities exhibit functional obsolescence, potential environmental concerns, and increasing maintenance requirements. Some facilities may require significant rehabilitation or replacement.

Key Facility Observations

Station 4 represents a critical structural concern due to foundation instability and requires major capital investment or replacement consideration.

Station 5 reflects functional obsolescence with aging infrastructure, potential hazardous materials, and deteriorating building systems.

Several stations exhibit deferred maintenance related to roofing, apparatus bay systems, and interior conditions.

Overall, the Reno station system is functional but requires a structured capital improvement strategy to address aging infrastructure and ensure long-term reliability.

City of Sparks Fire Stations and Facility Conditions

The Sparks Fire Department operates six fire stations, including a recently constructed station that reflects current design standards. The system serves a growing population and includes facilities ranging in age from the 1970s to 2025.

Overall, the Sparks station system is in moderate condition, with newer facilities performing well and older stations requiring modernization to accommodate current apparatus and operational needs.

Key considerations include station siting relative to growth areas, functional limitations in older facilities, and the need for ongoing capital investment.

Truckee Meadows Fire Protection District Stations

Truckee Meadows Fire Protection District operates 11 stations across a large geographic area. Station distribution reflects coverage of suburban, rural, and WUI environments.

Facilities vary in age and condition, with some stations designed for volunteer or combination staffing models. Operational considerations include travel distance, access limitations, and coverage gaps in expanding areas.

Detailed condition assessments for TMFPD facilities are limited and should be further evaluated as part of long-term capital planning.

System-Level Facility Observations

Across the regional system, station placement reflects historical development patterns rather than current or projected demand. Urban areas benefit from higher station density, while suburban and WUI areas experience reduced coverage redundancy.

Facility condition varies widely, with aging infrastructure representing a potential risk to long-term system reliability. Strategic planning for station placement, modernization, and potential relocation will be necessary to align infrastructure with future service demand.

APPENDIX 2C – EMERGENCY MEDICAL SERVICES SYSTEM PROFILE AND PERFORMANCE DETAIL

Purpose of Appendix

This appendix provides a comprehensive overview of the Emergency Medical Services (EMS) system within the Truckee Meadows region, including system design, operational configuration, performance characteristics, and integration with fire-based response. The intent is to support the operational analysis contained in the main body by documenting how EMS delivery functions as a critical component of the overall emergency response system.

EMS System Overview

Emergency medical services within Washoe County operate under a franchise-based system in which the Regional Emergency Medical Services Authority (REMSA) serves as the exclusive provider of ambulance transport services. Fire agencies, including the City of Reno Fire Department, City of Sparks Fire Department, and Truckee Meadows Fire Protection District, provide initial emergency medical response.

This model functions as a dual-response system in which fire units are typically the first arriving resource and provide immediate patient assessment, stabilization, and treatment. REMSA transport units provide patient transport to receiving hospitals and assume responsibility for patient care during transport.

The system is designed to leverage the geographic distribution and rapid response capability of fire stations while maintaining a centralized and medically controlled transport system.

REMSA Organizational Structure and Operations

REMSA operates as a high-performance EMS system utilizing dynamic deployment rather than fixed station-based ambulance assignment. Ambulances are positioned throughout the region based on demand patterns, system status, and predictive modeling.

The system includes advanced life support (ALS) ambulances staffed with paramedics, as well as supervisory personnel responsible for system oversight, quality assurance, and operational coordination. REMSA also maintains specialized resources, which may include critical care transport units, event support units, and coordination with regional air medical providers.

Operational control is maintained through a centralized communications and dispatch function, which coordinates ambulance deployment and interfaces with fire agency dispatch centers.

EMS Response Model and Integration with Fire Agencies

The EMS system relies on coordinated response between fire agencies and REMSA. Fire units are typically dispatched simultaneously with ambulance resources to high-priority medical incidents.

Fire personnel provide initial life-saving interventions, including advanced life support procedures where applicable. Upon arrival of the ambulance, patient care is transferred to REMSA personnel for transport.

This model is dependent on effective coordination between fire-based response and ambulance deployment. Key performance considerations include the time interval between fire arrival and ambulance arrival, the efficiency of patient transfer, and total time from incident to hospital arrival.

EMS Deployment Zones and Coverage

REMSA utilizes a zone-based deployment model in which ambulance resources are assigned to geographic response areas but are dynamically repositioned based on system demand. These zones are designed to balance response time performance with resource efficiency.

Zone performance varies based on call volume, geographic characteristics, and hospital proximity. Urban zones within Reno and Sparks generally experience shorter response intervals due to higher resource density, while suburban and outlying areas experience greater variability.

(Insert EMS Zone Map – Appendix 2E reference)

A detailed map of EMS deployment zones and ambulance coverage areas should be included to support understanding of system configuration and response patterns.

EMS Performance Metrics

EMS system performance is evaluated using several key intervals.

Call processing time reflects the time from call receipt to dispatch of resources and is influenced by dispatch center operations and protocol.

Response time is measured from dispatch to arrival of fire and ambulance resources. Fire response is typically faster due to station-based deployment, while ambulance response varies based on dynamic positioning and availability.

On-scene time reflects patient assessment, treatment, and preparation for transport. This interval is influenced by patient condition, incident complexity, and coordination between fire and EMS personnel.

Transport time reflects travel from the incident location to the receiving hospital and is influenced by distance, traffic conditions, and hospital destination.

Hospital offload time reflects the duration required to transfer patient care to hospital staff. This interval has become an increasingly significant factor in overall system performance.

(Insert EMS Interval Performance Table – Appendix 2F reference)

System performance should be evaluated across these intervals to understand total patient care time and identify areas for improvement.

Fire-Based EMS Response Capability

Fire agencies within the Truckee Meadows provide both basic life support (BLS) and advanced life support (ALS) capabilities. Many engine and truck companies are staffed with paramedics and are capable of delivering advanced interventions, including cardiac monitoring, drug administration, and advanced airway management.

This capability allows fire units to initiate critical care prior to ambulance arrival and plays a significant role in patient outcomes, particularly in time-sensitive medical emergencies.

In high-demand systems, fire-based ALS resources may remain engaged in patient care until transport arrival, increasing unit commitment time and affecting overall system availability.

EMS Workload and System Demand

EMS incidents represent the majority of emergency response activity within the region, typically accounting for approximately 70 to 80 percent of total call volume.

High EMS demand influences system performance in several ways. It increases unit utilization for both fire and ambulance resources, contributes to resource unavailability during concurrent incidents, and places pressure on response time performance.

Demand is concentrated within urban areas but is increasing in suburban and developing regions. Seasonal variation, population growth, and special events also influence EMS workload.

Hospital System and Transport Destinations

The Truckee Meadows region is served by multiple hospitals and medical facilities that function as primary EMS destinations. These include major regional medical centers, specialty care facilities, and a Veterans Affairs medical center.

Hospital distribution influences transport times and system efficiency. Facilities located within the urban core are more accessible, while transport from outlying areas requires longer travel times.

Hospital capacity and emergency department throughput directly affect EMS operations, particularly with respect to patient offload times.

Hospital Offload and System Impacts

Hospital offload delays represent a significant and growing challenge within the EMS system. When ambulance crews are delayed in transferring patients to hospital staff, units remain unavailable for response to additional incidents.

This condition creates a cascading effect on system performance, reducing ambulance availability, increasing response times, and placing additional demand on fire-based EMS resources.

Extended offload times are most commonly observed during peak demand periods and in high-volume emergency departments.

(Insert Hospital Offload Time Analysis – Appendix 2F reference)

System Reliability and EMS Integration Challenges

The EMS system operates effectively under normal conditions but experiences strain during periods of high demand and system saturation. Key challenges include variability in ambulance response times, delays in hospital offload, and coordination between fire and EMS resources.

The dual-response model requires consistent alignment between fire-based response and ambulance deployment. Misalignment in these components can result in extended patient contact times, increased workload on fire units, and reduced overall system efficiency.

Integration challenges are most evident in boundary areas, high-demand urban environments, and during concurrent incident conditions.

Opportunities for System Improvement

Several opportunities exist to improve EMS system performance and integration.

Improved coordination between fire dispatch and EMS dispatch can enhance alignment of response resources and reduce delays.

Evaluation of ambulance deployment strategies, including peak demand coverage, may improve response time reliability.

Enhanced integration of fire-based ALS resources with transport operations may improve patient care intervals.

Addressing hospital offload delays through coordination with healthcare partners represents a critical system-level improvement opportunity.

Conclusion

The EMS system within the Truckee Meadows is a critical component of overall emergency service delivery and operates as an integrated but complex system involving multiple agencies and stakeholders.

Performance is influenced by demand, deployment strategy, hospital capacity, and coordination between fire and EMS resources. While the system demonstrates strong capability, particularly in urban areas, variability and system constraints present opportunities for improvement.

This appendix provides the detailed EMS system context necessary to support the operational analysis and recommendations presented in the main body of this report.

APPENDIX 2D – PRIOR STUDIES REVIEW, RECOMMENDATION TRACKING, AND GAP ASSESSMENT

Purpose of Appendix

This appendix provides a structured and defensible review of prior fire and emergency medical services studies conducted within the Truckee Meadows region. In addition to summarizing prior findings, this appendix evaluates implementation status, identifies persistent and emerging gaps, and establishes a direct linkage between prior recommendations and current system conditions.
This approach moves beyond a narrative summary and establishes a recommendation tracking framework consistent with the Scope of Work requirement to evaluate prior studies and identify remaining gaps.

Overview of Prior Studies

Multiple studies have evaluated fire and EMS service delivery within Washoe County and the Truckee Meadows region over the past two decades. These studies include:

- Regionalization Model and Recommendations – Reno/Sparks/Washoe/REMSA (Federal Engineering, 2023)
- Reno Fire Department Operational and Administrative Analysis (CPSM/ICMA, 2019)
  Blue Ribbon Committee Report on Regional Fire Service (ESCI, 2014)
- Washoe County Emergency Medical Services Systems Analysis (TriData/SPC, 2012)
  Sierra Forest Fire Protection District Studies (Walker and Associates, 2003 and 2004)
- Collectively, these studies address governance, dispatch systems, EMS oversight, deployment models, and regionalization strategies.

Synthesis of Recurring Findings

Across all prior studies, a consistent set of system-level findings emerges. These findings are not isolated; they are repeated, refined, and reinforced over time.
Regional coordination improves operational efficiency and response performance
Dispatch integration and interoperable CAD systems are foundational to system performance
Closest-unit response across jurisdictional boundaries is critical to optimizing outcomes
EMS demand is the dominant driver of workload and system stress
Governance fragmentation creates inefficiencies and limits system optimization
Standardized performance metrics are necessary for systemwide evaluation
These findings remain valid and are directly supported by current system observations.
Recommendation Tracking and Implementation Status

The review of prior studies demonstrates that while progress has occurred, implementation has been uneven and incomplete. The following table consolidates recurring recommendations and evaluates their implementation status at a system level.

Table 2D-1 – Consolidated Prior Recommendations and Implementation Status

Category	Recurring Recommendation	Implementation Status	Observed Gap	Operational Impact
Dispatch / Technology	Interoperable CAD and dispatch integration	Partial	Lack of full CAD integration and PSAP alignment	Delays, inefficiencies, inconsistent call handling
Dispatch / EMS Coordination	Reduction of 9-1-1 call transfers	Limited	Continued call routing inefficiencies	Increased processing time, degraded information flow
Deployment / Regional Coordination	Closest-unit response across jurisdictions	Partial	Not consistently applied due to policy, labor, and system barriers	Slower response in boundary areas
Data / Performance	Standardized metrics and definitions	Limited	No unified data dictionary or reporting standard	Inability to measure system performance reliably
EMS Governance	Countywide EMS oversight structure	Limited	Fragmented oversight and unclear authority	Inconsistent EMS system performance and accountability
EMS Clinical Governance	Systemwide QA/QI and medical direction	Partial	Variability across agencies and providers	Uneven clinical performance and review
EMS Franchise / REMSA Coordination	Strengthened oversight and coordination	Partial	Gaps in data sharing, contingency planning, and integration	Reduced system resilience and coordination

Category	Recurring Recommendation	Implementation Status	Observed Gap	Operational Impact
Governance / Regionalization	Phased regionalization strategy	Partial	Early-stage collaboration without full progression	Stalled system integration
Legal / Finance	Resolution of governance and tax barriers	Limited	Structural and statutory barriers remain	Constraints on regional solutions
Labor / Workforce	Alignment of staffing and compensation	Limited	Ongoing disparities and competition	Barrier to integration and deployment flexibility
Deployment / Staffing	Data-driven deployment adjustments	Limited	Inconsistent use of workload-based deployment	Inefficient resource allocation
Wildland / Risk Reduction	Expanded WUI mitigation and preparedness	Partial	Growing WUI risk outpacing mitigation efforts	Increased fire risk and operational demand
Community Engagement	Public education on system design	Limited	Lack of consistent outreach and expectation management	Misalignment between service expectations and delivery

Gaps Between Prior Studies and Current Conditions

In addition to incomplete implementation, several conditions have evolved beyond what prior studies fully addressed; for example:

- Population growth and development have accelerated, particularly in Sparks and unincorporated areas
- Wildland-urban interface risk has increased significantly, requiring expanded capability and deployment planning
- EMS demand continues to grow and now represents the dominant workload driver Hospital offload delays have emerged as a major system constraint affecting unit availability
- System workload distribution has become increasingly uneven across jurisdictions

These factors compound the impact of previously identified gaps and increase the urgency for system-level solutions.

System-Level Gaps Identified

Based on the combined review of prior studies and current conditions, the following system-level gaps are identified.

- Lack of fully integrated dispatch and CAD systems
- Inconsistent application of closest-unit response
- Absence of standardized data governance and performance measurement
- Fragmented EMS oversight and clinical governance structure
- Governance and legal barriers to regionalization
- Workforce and labor misalignment across agencies
- Limited use of data-driven deployment strategies
- Increasing mismatch between risk profile and deployment configuration

These gaps are consistent with prior findings but are now more consequential due to system growth and demand.

Interagency Variability

Significant differences exist between participating agencies that further limit system performance.

Staffing models vary, including three- and four-person apparatus configurations

Deployment strategies are jurisdiction-based rather than system-based

Dispatch protocols differ across PSAPs

Data collection and reporting are not standardized

This variability prevents the system from functioning as an integrated regional model and limits the ability to evaluate performance comprehensively.

Relevance to Current Study

The current study directly addresses the persistent and emerging gaps identified in prior analyses. Specifically, this study advances the work of prior reports by:

Providing validated, standardized performance data (see Appendix E)

Evaluating deployment using a systemwide Standards of Cover approach

Analyzing dispatch integration and closest-unit response feasibility

Assessing EMS system performance, including offload delays

Developing scenario-based regionalization models

This represents a transition from recommendation-based studies to implementation-focused analysis.

Conclusion

Prior studies provide a consistent and credible foundation for understanding fire and EMS service delivery within the Truckee Meadows region. However, the review demonstrates that the core issues have been repeatedly identified but not fully resolved.
The persistence of these issues, combined with increased demand and evolving risk, reinforces the need for coordinated, system-level solutions. This appendix establishes that the current study is not introducing new concepts but rather advancing long-standing recommendations toward implementation through data validation, performance analysis, and regional modeling.

APPENDIX 2E – GIS ANALYSIS, MODELING OUTPUTS, AND REQUIRED PRODUCTS

Purpose

This appendix defines the geospatial analysis required to evaluate fire and emergency medical service performance across Washoe County and the participating agencies included in this study. The GIS work described herein is necessary to validate response performance, assess geographic coverage, identify system inefficiencies, support scenario-based modeling, and provide a defensible analytical basis for findings presented in the main body of the report.

GIS Analytical Objectives

The GIS analysis is not intended to function solely as a visual exhibit package. It is a core validation component of this project and is required to substantiate conclusions related to deployment, coverage, reliability, closest-unit response, effective response force (ERF), EMS system integration, and regional coordination opportunities. The geospatial products identified in this appendix shall support the following primary objectives: validate current deployment and response performance; identify areas of strong coverage, weak coverage, and operational redundancy; quantify the impact of jurisdictional boundaries and dispatch fragmentation; evaluate alternative deployment and dispatch scenarios; integrate wildfire, EMS, and community risk overlays; and produce report-ready figures and analytical outputs suitable for executive and technical review.

Table 2E-1 – Required GIS Data Inputs

Data Category	Required Data Elements	Analytical Purpose	Primary Use in Report
Computer-Aided Dispatch (CAD) Data	Incident identifier; incident location; incident type/priority; dispatched units; dispatch, enroute, and arrival times; first-arriving unit; jurisdiction/agency	Supports actual response validation, travel-time comparison, closest-unit analysis, and scenario modeling	Response Time Performance; Closest Unit Analysis; Scenario Modeling
Station and Apparatus Data	Station locations; station name/number; agency; apparatus type; unit identifiers; staffing	Supports station-based travel modeling, ERF	Coverage and Deployment Analysis;

Data Category	Required Data Elements	Analytical Purpose	Primary Use in Report
	configuration; unit hours/availability	assembly analysis, and coverage evaluation	ERF Analysis; Scenario Modeling
Road Network Data	Street centerlines; travel speeds; road class; access constraints; seasonal or terrain limitations	Supports isochrone development and modeled travel-time analysis	Baseline Performance Metrics; Scenario Comparisons
Jurisdictional and Governance Boundary Data	Reno, Sparks, TMFPD, Washoe County, federal lands, tribal lands, and other service boundaries	Supports boundary friction analysis and governance-related deployment evaluation	Closest Unit Analysis; Governance and Regional Coordination Discussion
EMS System Data	REMSA zones; ambulance posting locations; hospitals; service areas; transport corridors	Supports evaluation of fire-based EMS alignment with the regional transport system	EMS System Performance Section
Land Use and Community Risk Data	Parcels/land use; population density; WUI boundaries; fuel models; critical infrastructure; community risk features	Supports demand, wildfire, and community risk analysis	Community Risk; WUI Analysis; Standards of Cover

Data Validation and Quality Review

Prior to conducting modeling or scenario analysis, the GIS specialist shall perform a basic validation and quality review of all geospatially relevant datasets. This review is necessary to ensure that analytical outputs remain defensible and that known data limitations are disclosed. At a minimum, the GIS specialist shall evaluate and document missing or incomplete incident coordinates, poorly geocoded or unmatched incident locations, missing or inconsistent response timestamps, duplicate incident records, apparatus or unit naming inconsistencies, station assignment discrepancies, incomplete response records, and any material exclusions necessary to preserve data quality. Where limitations exist, those limitations shall be clearly documented in a short technical methods summary so that map products and conclusions can be interpreted appropriately.

Table 2E-2 – GIS Products and Required Outputs

GIS Product	Required Output	Purpose	Placement in Report
Baseline Response Time Contour Maps	4-minute and 8-minute travel-time contours; incident overlays; station overlays; jurisdictional boundaries	Quantifies expected travel coverage and compares theoretical access to actual incident geography	Baseline Performance Metrics; Coverage and Deployment Analysis; Scenario Comparisons
Actual Response Reliability Mapping	Average response time by area; 90th percentile response time; chronic underperformance zones	Validates whether actual field performance aligns with modeled travel expectations	Response Time Performance; System Reliability; Standards of Cover
Demand Density and Heat Mapping	All-call density map; EMS-only density map; fire incident density map	Identifies workload concentration and alignment of deployment with demand	Workload and Unit Utilization; Coverage and Deployment Analysis
Station Coverage and Redundancy Mapping	First-due coverage areas; overlap zones; single-station dependency areas; weak secondary coverage	Identifies coverage gaps, redundancy, and vulnerability during concurrent incidents	Deployment and Coverage Analysis; Standards of Cover
Closest Unit Response Analysis	Closest-unit dispatch percentage; non-closest dispatch percentage; travel-time differential; inefficiency map	Quantifies dispatch inefficiency and boundary-driven performance loss	Dispatch and Closest Unit Analysis; Scenario 2 Evaluation
Response Time Reliability Surface Mapping	Performance surface or contour representation of delayed performance; recurring exceedance zones	Illustrates geographic reliability and recurring delay patterns	Response Time Performance; GIS Findings Summary
Effective Response Force (ERF) Assembly Mapping	Time-to-ERF assembly contours; geographic variation; urban/suburban/WUI comparison	Evaluates ability to deliver sufficient structure fire resources within critical timeframes	ERF Section; System Reliability; Scenario Comparisons
WUI Risk and Overlay Mapping	WUI overlays; fuel model mapping; structure density in WUI; wildfire	Identifies wildfire exposure and planning implications	Community Risk; WUI Discussion; Standards of Cover

GIS Product	Required Output	Purpose	Placement in Report
	exposure relative to coverage		
EMS System Overlay Mapping	REMSA zones; ambulance posts; hospital destinations; transport corridor analysis	Evaluates integration between fire-based EMS and regional ambulance/hospital systems	EMS System Performance; System Integration Analysis

Table 2E-3 – Scenario-Based GIS Modeling Requirements

Scenario	Description	Required GIS Outputs	Analytical Purpose
Scenario 1 – Baseline Conditions	Existing station locations, current dispatch practices, and present operational geography	Baseline response contours; demand overlays; reliability metrics; coverage and redundancy conditions	Establishes current-state control condition for all comparative analysis
Scenario 2 – Closest Unit Response	Modeled dispatch condition in which the closest available appropriate unit is sent irrespective of jurisdiction, where feasible	Improved travel-time contours; reduction in travel-time differentials; workload redistribution mapping; areas of improved response	Quantifies operational impact of closest-unit dispatch and boundary-related inefficiency
Scenario 3 – Coordinated Regional Deployment	Modeled deployment condition reflecting improved cross-boundary coordination and coverage balancing	Optimized coverage maps; improved redundancy and gap reduction mapping; enhanced travel-time and reliability contours; ERF improvement where feasible	Evaluates geographic and operational benefits of coordinated regional deployment

Table 2E-4 – Final GIS Deliverables

Deliverable	Description	Required Format	Project Use
Publication-Quality Maps	Final executive- and report-ready maps with title, legend, scale, north arrow, source note, and date/version	High-resolution report insertions suitable for appendices and main body	Supports visual validation and executive presentation
Supporting Analytical Tables	Quantitative outputs accompanying maps, such as coverage percentages, incident impacts, gap areas, and scenario comparisons	Word-ready tables or spreadsheet outputs convertible to report format	Supports measurable findings and narrative substantiation
Figure Naming and Numbering	Consistent figure titles and numbering convention for all GIS outputs	Figure-ready labels such as Figure E-1 through Figure E-6+	Supports clean appendix and report integration
Technical Methods Summary	Concise explanation of data sources, assumptions, methods, exclusions, and limitations	Narrative memorandum or appendix-ready technical note	Supports defensibility and reproducibility of GIS findings

Core Validation Questions

The GIS work described in this appendix shall be structured to answer the following core study questions: Are current station locations and deployment patterns aligned with actual incident demand? Do modeled travel-time expectations align with observed field performance? Where are the persistent geographic coverage gaps, weak redundancy areas, and reliability concerns? To what extent are jurisdictional boundaries or dispatch practices creating avoidable inefficiencies? Would closest-unit response materially improve service performance? Would a more coordinated regional deployment model improve coverage, reliability, and operational resilience? If the GIS work clearly answers these questions, it will successfully validate and complete the geospatial analysis required for this project.

Summary

The GIS products identified in this appendix are required to validate system performance, support scenario modeling, and provide a defensible analytical basis for the findings and recommendations presented in the main body of the report. These outputs are essential to substantiate conclusions related to deployment, response reliability, closest-unit analysis, EMS system integration, WUI exposure, and regional service coordination. The final GIS package must function as a validation and decision-support tool, not merely as a map series, and shall be completed in a manner that is technically sound, operationally relevant, and suitable for executive-level presentation.

APPENDIX 2F – DATA VALIDATION, PERFORMANCE METRICS, AND CONFIDENCE ASSESSMENT

Purpose

This appendix establishes the methodology used to validate operational data, define accepted performance metrics, and assess the reliability of analytical outputs. The objective is to ensure that all findings within this study are based on consistent, comparable, and defensible data.

Table 2F-1 – Primary Data Sources and Analytical Use

Data Source	Primary Function in Analysis	Strength	Key Limitation
CAD	Incident volume, response patterns, time analysis	High-resolution operational data	Variability in coding and timestamps
RMS	Incident classification and reporting validation	Cross-check capability	Inconsistent classification structures
REMSA EMS Data	EMS workload and transport interface	Critical for EMS demand analysis	Separate system architecture
Prior Studies	Continuity and comparative validation	Identifies recurring issues	Different methodologies
GIS Modeling Outputs	Travel time and spatial validation	Supports deployment modeling	Dependent on data quality

Table 2F-2 – Standardized Performance Definitions

Metric	Definition	Start	End	Planning Relevance
Call Processing Time	Time from call receipt to dispatch	Call Receipt	Dispatch	Dispatch efficiency
Turnout Time	Time from dispatch to enroute	Dispatch	Enroute	Crew readiness
Travel Time	Time from enroute to arrival	Enroute	Arrival	Deployment effectiveness

Metric	Definition	Start	End	Planning Relevance
Total Response Time	Time from call receipt to arrival	Call Receipt	Arrival	System performance
ERF Assembly Time	Time to assemble full assignment	Call Receipt	Full Assignment Arrival	Fireground capability

Table 2F-3 – Accepted Performance Metrics for System Analysis

Metric	Purpose	Limitation	Use in Study
Average Response Time	General performance indicator	Does not reflect reliability	Baseline context
90th Percentile	Reliability under demand	Sensitive to data quality	Primary metric
ERF Assembly Time	Fireground readiness	Dependent on staffing	Operational analysis
Unit Utilization	Workload measurement	Does not capture concurrency	Resource planning
Incident Concurrency	Simultaneous demand	Complex to model	System stress analysis
Closest Unit Performance	Dispatch efficiency	Requires accurate location data	Boundary analysis

Table 2F-4 – Data Confidence Assessment Framework

Confidence Level	Definition	Characteristics	Analytical Treatment
High	Consistent verified data	Aligned datasets, verified timestamps	Direct use
Moderate	Minor inconsistencies	Some gaps or mismatches	Used with caution
Limited	Significant gaps	Missing or inconsistent data	Assumption-based

Table 2F-5 – Data Limitations and Analytical Constraints

Limitation	Description	Impact	Mitigation
CAD Variability	Different system configurations	Inconsistent timestamps	Normalization
Timestamp Differences	Different definitions	Measurement inconsistency	Standard definitions
Incomplete Data	Missing historical records	Reduced reliability	Assumptions
Multi-PSAP	Different dispatch centers	Fragmented data	Cross-validation
Agency Coding	Different practices	Inconsistent classification	Data cleaning

Conclusion

The validation framework ensures that the analysis presented in this study is based on defensible and standardized data. While limitations exist, the methodology provides sufficient reliability to support system-level evaluation and policy decision-making.

APPENDIX 2G – COMMUNITY PROFILE, DEMOGRAPHICS, AND GROWTH ANALYSIS

Purpose

This appendix provides the detailed demographic, economic, housing, and growth characteristics of Washoe County that inform emergency service demand, risk exposure, and long-term system planning. This material supports and expands upon the summarized discussion contained in the main body of the report.

County Overview

Washoe County is Nevada's second-largest population center and encompasses approximately 6,315.88 square miles. The county includes the Reno–Sparks metropolitan area, commonly referred to as the Truckee Meadows, along with extensive suburban, rural, and undeveloped areas. The estimated population as of July 1, 2024 is approximately 507,280 residents, with a population density of approximately 77 persons per square mile. North Lake Tahoe, including Incline Village, Crystal Bay, the North Lake Tahoe Fire Protection District, and the Incline Village General Improvement District, is excluded from this study consistent with Senate Bill 319.

Table 2G-1 – Washoe County Community and Demographic Profile

Indicator	Value	Planning Relevance
Population (2024)	507,280	Defines service demand baseline
Land Area	6,315.88 sq mi	Impacts travel time and coverage
Population Density	77/sq mi	Indicates deployment complexity
Under 18	20.1%	Pediatric EMS demand
65 and Older	18.5%	Geriatric EMS demand
Median Household Income	$88,096	Community resilience indicator
Poverty Rate	9.4%	Influences service demand
Mean Commute Time	22.5 minutes	Traffic and response impact
Housing Units	227,930	Structure exposure
Households	199,296	Demand distribution
Persons per Household	2.46	Occupancy patterns
Total Employment	209,307	Daytime population
Employer Establishments	14,199	Commercial risk

Table 2G-2 – Population Growth by Jurisdiction

Jurisdiction	2014	2019	2024	10-Year Growth	5-Year Growth
Washoe County	436,800	~469,800	513,900	+17.6%	+9.4%
Reno	235,400	~255,200	281,000	+19.4%	+10.1%
Sparks	92,400	~102,500	115,200	+24.7%	+12.4%
Unincorporated	~109,000	~112,100	~117,700	+8%	+5%

Table 2G-3 – Housing and Development Characteristics

Indicator	Value	Operational Relevance
Owner Occupancy	59.9%	Community stability
Median Rent	$1,608	Economic pressure indicator
Median Home Value	$539,900	Property risk exposure
Permits 2023	4,700	Baseline development
Permits 2024	5,900	Growth acceleration

Table 2G-4 – Economic and Employment Characteristics

Indicator	Value	Planning Relevance
Labor Force Participation	65.5%	Workforce availability
Total Jobs	209,307	Daytime population
Annual Payroll	$12.9B	Economic scale
Major Sectors	Healthcare, logistics, tourism	Risk profile
Commute Time	22.5 minutes	Traffic impact

Growth Patterns and Operational Implications

Growth within the Truckee Meadows is spatially uneven, with expansion occurring in Sparks and unincorporated areas at the edges of the metropolitan area. These patterns increase response distances, reduce redundancy, and create variability in response time performance. Industrial and logistics development introduces large structures, increased transportation activity, and specialized hazards. Residential expansion into interface areas increases exposure to wildland–urban interface fire risk and introduces operational challenges related to access, water supply, and evacuation.

Table 2G-5 – Growth and Demographic Factors Affecting Emergency Service Demand

Factor	Current Condition	Operational Impact	Planning Implication
Population Growth	Increasing	Higher call volume	Requires expansion
Aging Population	Growing	More EMS demand	ALS focus
WUI Expansion	Expanding	Increased fire risk	Mitigation needed
Industrial Growth	Increasing	Special hazards	Pre-plan required
Housing Density	Mixed	Variable risk	Deployment changes
Language Diversity	Increasing	Communication challenges	Training needed

Conclusion

The demographic and growth characteristics of Washoe County indicate a system experiencing sustained demand increases, expanding geographic service requirements, and evolving risk conditions. These factors directly influence emergency service workload, response performance, and long-term deployment planning.

APPENDIX 2H – COMPARATIVE SYSTEMS AND CASE STUDY ANALYSIS (SOUTHERN NEVADA MODEL)

Purpose of Appendix

This appendix provides a comparative analysis of the fire service delivery model utilized in southern Nevada, particularly within Clark County and the Las Vegas metropolitan area. The intent is to provide a relevant case study demonstrating how multi-agency systems can evolve to achieve operational integration, improved performance, and efficient resource utilization.

Overview of Southern Nevada Fire Service Model

The southern Nevada fire service system includes multiple agencies operating within the Las Vegas metropolitan area, including Clark County Fire Department and municipal fire departments. While governance structures remain separate, operational practices have evolved to function as a coordinated regional system. The system is characterized by integrated dispatch, closest-unit response, standardized operational procedures, and coordinated deployment strategies. These elements allow resources to be applied based on proximity and demand rather than jurisdictional boundaries.

Evolution of the Model

The southern Nevada model developed over several decades in response to rapid population growth, increasing call volume, and operational inefficiencies associated with fragmented service delivery. During the 1990s and early 2000s, agencies expanded automatic aid agreements and began investing in regional communications infrastructure. Between approximately 2005 and 2015, the system matured through implementation of CAD interoperability, AVL technology, and routine cross-jurisdictional response. These changes allowed for real-time identification of available resources and improved coordination across agencies.

Table 2H-1 – Comparative System Characteristics: Southern Nevada vs Washoe County

Component	**Southern Nevada Model**	**Current Washoe County Condition**	**Operational Implication**
Governance Structure	Separate governance, coordinated operations	Separate governance, partial coordination	Regional operations possible without immediate consolidation
Dispatch System	Integrated dispatch environment	Shared CAD with differing policies	Dispatch alignment remains key gap
Closest-Unit Response	Routine and expected	Partial and inconsistent	Boundary delays remain in Washoe
CAD / AVL Integration	Operationally mature	Technically present but not fully optimized	Technology exists; policy use lags
Staffing Model	More aligned by risk	Mixed staffing approaches	Affects ERF and consistency
Deployment Strategy	System-based deployment	Agency-based deployment	Limits regional efficiency
Performance Measurement	More standardized	Still inconsistent	Difficult to compare outcomes
Interagency Coordination	Operationally mature	Improving but uneven	Opportunity for structured advancement
Boundary Limitations	Minimized operationally	Still meaningful	Creates inefficiency
Data Standardization	Higher maturity	Still developing	Limits defensible systemwide evaluation

Table 2H-2 – Operational Lessons and Application to Washoe County

Southern Nevada Practice	**Observed Benefit**	**Applicability to Washoe County**	**Implementation Consideration**
Closest-unit response	Reduced boundary delay	High	Requires dispatch and labor alignment
Dispatch integration	Improved coordination	High	Needs PSAP and protocol harmonization
Staffing alignment	More predictable ERF	Moderate to High	Requires policy and cost consideration
CAD interoperability	Better situational awareness	High	Existing platform can support it
Regional deployment coordination	Improved coverage balance	High	Needs operational governance
Performance standardization	Comparable system metrics	High	Requires data governance framework

Table 2H-3 – Phased Evolution of the Southern Nevada Model

Time Period	Key Development	System Impact
1990s–Early 2000s	Automatic aid expansion and communications investment	Improved interagency coordination
2005–2015	CAD interoperability and AVL integration	Enabled closer-unit response and real-time awareness
Mature Model	Routine coordinated regional operations	Improved performance and reliability without full governance consolidation

Relevance to Washoe County

The southern Nevada model provides a relevant example for Washoe County due to similarities in multi-agency structure, population growth, and service demand. The model demonstrates that significant performance improvements can be achieved through operational alignment, dispatch integration, and coordinated deployment without requiring immediate governance changes. Key lessons applicable to Washoe County include the importance of closest-unit response, standardized operational procedures, and investment in dispatch interoperability.

Limitations and Considerations

While the southern Nevada model provides valuable insights, differences in geography, population density, and governance structure must be considered when applying these lessons to Washoe County. Implementation of similar strategies will require adaptation to local conditions, including WUI exposure, rural service areas, and existing agency relationships.

Conclusion

The southern Nevada fire service model demonstrates that a coordinated, system-based approach to service delivery can improve performance, enhance reliability, and optimize resource utilization. This case study supports the analysis and recommendations presented in the main body by providing a proven example of how regional operational alignment can be achieved within a multi-agency environment.

APPENDIX 2I – NFPA 1710, NFPA 1720, AND NFPA 1750 COMPARATIVE FRAMEWORK

Purpose

This appendix provides a comparative framework of NFPA 1710 (career fire departments), NFPA 1720 (volunteer and combination departments), and the consolidated NFPA 1750 standard. The comparison establishes a unified reference point for evaluating deployment, staffing, response performance, and system expectations across the Washoe County regional fire service system.

Overview

Historically, NFPA 1710 and NFPA 1720 established separate performance and deployment standards for career and volunteer fire departments. NFPA 1750 consolidates these standards into a single framework organized by service environment and operational characteristics rather than governance model. This transition reflects a shift from agency-specific standards to a system-based performance model, which is consistent with the intent of Senate Bill 319 and the regional evaluation approach used in this study.

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Table 2I-1 – Comparative Framework: NFPA 1710, NFPA 1720, and NFPA 1750

Topic	NFPA 1710	NFPA 1720	NFPA 1750	Planning Relevance to Washoe County
Department Classification	Career departments	Volunteer/combination departments	Integrated by service environment	Supports multi-model regional analysis
Staffing Model	Minimum four-person engine/truck companies	Zone-based personnel assembly	Preserves both approaches	Reflects mixed Washoe deployment conditions
Response Time	4-minute travel benchmark	Zone-based assembly targets	Maintains benchmarks by environment	Useful for urban and suburban comparison
ERF	17 personnel residential; 42 high-rise	Variable by density	Maintains environment-based ERF expectations	Supports systemwide fireground evaluation
Call Processing	64 seconds	Not defined consistently	Greater emphasis on standardization	Supports dispatch review
Turnout	60 sec EMS / 80 sec fire	Not standardized	Standardized performance emphasis	Supports reliability measurement
WUI Treatment	Referenced	Referenced	Formalized planning requirement	Highly relevant to Washoe
Prevention / CRR	Limited direct emphasis	Limited direct emphasis	Expanded inclusion	Supports all-hazards planning
Data / Reporting	Performance-based	Variable	CAD and data quality emphasis	Critical for this study

Table 2I-2 – Operational Response and Staffing Benchmarks

Operational Element	NFPA 1710 Benchmark	NFPA 1720 Benchmark	NFPA 1750 Framework	Application to Washoe
Engine Staffing	4 personnel	Not apparatus-specific	Environment-dependent	Varies across agencies
Truck Staffing	4 personnel	Not apparatus-specific	Environment-dependent	Impacts ERF and reliability
First Arriving Company	4-minute travel	Demand zone dependent	Maintains environment logic	Supports urban benchmarking
Residential ERF	17 personnel / 8 min	Variable by density	Retained by service environment	Useful for coordinated deployment review
High-Rise ERF	42 personnel	Not primary emphasis	Retained where applicable	Relevant to Reno urban core
Call Processing	64 sec	Not standardized	More standardized expectation	Supports PSAP analysis
EMS Turnout	60 sec	Not standardized	Standardized by environment	Useful for EMS workload review
Fire Turnout	80 sec	Not standardized	Standardized by environment	Supports suppression analysis

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Table 2I-3 – NFPA Standard Evolution and Policy Implications

Change Introduced in NFPA 1750	Significance	Implication for Regional Evaluation
Career / volunteer integration	Moves beyond separate agency categories	Supports regional multi-agency analysis
System-based framework	Focuses on service environment and performance	Fits Washoe's mixed system conditions
CAD-based performance emphasis	Requires defensible operational measurement	Supports current data validation approach
Prevention / CRR inclusion	Expands beyond suppression-only view	Supports broader service delivery assessment
WUI integration	Formalizes deployment and planning relevance	Critical to Truckee Meadows and fringe areas
Data quality expectations	Reinforces standardized metrics and reporting	Supports Appendix F and system benchmarking

Table 2I-4 – Washoe County Environmental Fit

Washoe Environment	Relevant NFPA Standard Logic	Operational Consideration
Reno Urban Core	NFPA 1710 / 1750 urban expectations	Higher staffing and ERF expectations
Sparks Growth Areas	NFPA 1710 / 1750 suburban application	Travel time and reliability pressures
TMFPD Fringe / WUI	NFPA 1720 / 1750 mixed-environment logic	WUI and access complexity
Rural Response Areas	NFPA 1720 / 1750 demand-zone approach	Longer travel and assembly challenges
Boundary / Mutual Aid Areas	NFPA 1750 system-based coordination	Supports closest-unit and coordinated deployment

Operational Significance for Washoe County

The consolidation of NFPA standards into NFPA 1750 directly supports a regional evaluation model. Washoe County's system includes urban, suburban, rural, and WUI environments that align with multiple NFPA deployment frameworks. The unified structure of NFPA 1750 allows performance to be evaluated across these environments using consistent metrics. This framework reinforces the need to evaluate system performance based on coordinated response, effective resource assembly, and data-driven analysis rather than jurisdictional boundaries.

Conclusion

NFPA 1750 represents a transition to a comprehensive, system-based standard that integrates staffing, deployment, response performance, and community risk reduction into a single framework. This approach aligns with the objectives of this study and provides a consistent benchmark for evaluating current and future service delivery models within Washoe County.

APPENDIX 2J – RESPONSE TIME STANDARDS AND PERFORMANCE MEASUREMENT FRAMEWORK

Purpose

This appendix establishes a standardized framework for evaluating response time performance across the Washoe County regional fire and emergency medical services system. It provides a comparative analysis of response time components defined in NFPA 1710, NFPA 1720, and NFPA 1750 and defines how those components are measured and applied within this study.

Overview

Response time is a composite measure consisting of multiple sequential phases, including alarm answering, call processing, turnout, travel, and total response time. Accurate evaluation of system performance requires consistent definition and measurement of each component. NFPA 1710 establishes detailed time benchmarks for career fire departments, while NFPA 1720 utilizes a zone-based assembly model for volunteer systems. NFPA 1750 consolidates these approaches and reinforces the requirement for standardized, CAD-based performance measurement across all department types.

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Table 2J-1 – Standardized Response Time Component Definitions

Response Component	Definition	Measurement Start	Measurement End	Planning Relevance
Alarm Answering	Time from 9-1-1 receipt to PSAP answer	Call Receipt	Call Answer	Dispatch center performance
Call Processing	Time from call answer to unit dispatch	Call Answer	Dispatch	Call handling efficiency
Turnout	Time from dispatch to enroute	Dispatch	Enroute	Crew readiness
Travel	Time from enroute to arrival	Enroute	Arrival	Deployment effectiveness
Total Response Time	Time from call receipt to arrival	Call Receipt	Arrival	Overall system performance
ERF Time	Time to assemble sufficient personnel/resources	Call Receipt	Full assignment arrival	Fireground capability

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Table 2J-2 – NFPA Response Time Benchmark Comparison

Operational Benchmark	**NFPA 1710**	**NFPA 1720**	**NFPA 1750**	**Application to Washoe County**
Alarm Answering	15 sec (95%), 40 sec (99%)	Not emphasized similarly	Retained across systems	Supports PSAP performance review
Call Processing	64 sec (90th percentile)	Not standardized	Extended emphasis	Supports dispatch normalization
EMS Turnout	60 sec	Not standardized	Maintained by environment	Useful for EMS analysis
Fire Turnout	80 sec	Not standardized	Maintained by environment	Useful for suppression analysis
First-Due Engine	240 sec travel	Zone-based logic	Retained by environment	Supports urban benchmark
First-Due EMS	240 sec	Zone-based logic	Applied broadly	Supports EMS comparison
ALS Arrival	480 sec	Variable	Extended across ALS systems	Supports ALS performance review
ERF Residential	17 personnel / 8 min	Variable by density	Retained by environment	Supports coordinated deployment analysis
ERF High-Rise	42 personnel / ~10 min	Not primary focus	Retained where applicable	Relevant to Reno core

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Table 2J-3 – Response Time Performance Measurement Framework Used in This Study

Metric	Analytical Use	Primary Data Source	Reliability Consideration
Average Response Time	General system context	CAD	Does not reflect reliability
90th Percentile	Primary reliability measure	CAD	Sensitive to data consistency
Dispatch to Arrival	Operational performance review	CAD	Dependent on timestamp integrity
Total Response Time	Composite performance assessment	CAD / RMS	Requires normalized definitions
ERF Assembly	Fireground capability evaluation	CAD / unit assignment	Affected by staffing and dispatch policy
Spatial Travel Validation	Travel-time reasonableness check	GIS / CAD	Requires map and geocode accuracy

Table 2J-4 – Response Time Interpretation in a Regional Fire Service Environment

Performance Dimension	Why It Matters	Regional Planning Implication
Reliability vs Average	Average times can mask poor consistency	Use 90th percentile as primary benchmark
Boundary Effects	Jurisdictional limits can delay closest resource	Supports closest-unit evaluation
Staffing Impact	Crew size affects ERF assembly and fireground performance	Supports staffing analysis
Dispatch Effect	Call handling and dispatch policy influence performance	Supports dispatch integration review
GIS Validation	Spatial review confirms or challenges CAD assumptions	Supports deployment analysis
CAD Standardization	Different timestamp logic can distort comparison	Requires data normalization

Application to Washoe County

The multi-agency system in Washoe County requires standardized response time definitions to ensure comparability across jurisdictions. Differences in dispatch systems, data structures, and reporting practices must be normalized to produce a reliable regional analysis. This study applies uniform definitions for call processing, turnout, travel, and total response time across all participating agencies. Performance is evaluated using both average and 90th percentile metrics, with emphasis placed on reliability under peak demand conditions. GIS modeling and CAD data analysis are used to validate response time performance spatially and operationally.

Conclusion

Response time performance is a critical indicator of system effectiveness but must be evaluated as a composite measure rather than a single metric. The framework established in this appendix ensures consistent measurement and supports a defensible analysis of fire and EMS performance across the Washoe County system.

APPENDIX 2K – APPARATUS STAFFING AND OPERATIONAL DEPLOYMENT REQUIREMENTS

Purpose

This appendix establishes the staffing requirements associated with fire apparatus and operational deployment under NFPA 1710, NFPA 1720, and NFPA 1750. It provides a unified reference for evaluating staffing configurations, operational capability, and their direct relationship to effective response force assembly and system performance.

Overview

Staffing is one of the most critical determinants of fireground effectiveness, emergency medical service capability, and overall system reliability. NFPA 1710 establishes minimum staffing requirements for career fire departments, while NFPA 1720 relies on personnel assembly based on demand zones. NFPA 1750 consolidates these approaches into a single framework that recognizes both staffing models while reinforcing performance-based outcomes.

Table 2K-1 – Apparatus Staffing Minimums Comparison

Apparatus Type	NFPA 1710 Minimum (Career)	NFPA 1720 Minimum	NFPA 1750 Framework	Planning Relevance to Washoe County
Engine Company (Standard)	4 personnel	No per-apparatus minimum; assembly targets apply	4-person staffing preserved in career environments	Baseline urban staffing benchmark
Engine Company (High Frequency / Restriction)	5 personnel in AHJ-designated zones	Not specified	Preserved where justified	Relevant in dense/high-demand corridors
Engine Company (High Hazard / Dense Urban)	6 personnel in AHJ-designated zones	Not specified	Preserved where justified	Relevant to higher-risk urban environments
Ladder / Truck Company	4 personnel	No per-apparatus minimum	4-person staffing preserved	Critical for ventilation, rescue, and aerial operations

Apparatus Type	NFPA 1710 Minimum (Career)	NFPA 1720 Minimum	NFPA 1750 Framework	Planning Relevance to Washoe County
Quint	4 personnel	Assembly model	4-person staffing clarified regardless of role	Important where quints substitute for truck or engine
Mobile Water Supply / Tender	2 personnel	Included in assembly if needed	2-person minimum preserved	Relevant to WUI and rural water supply areas
Heavy Rescue / Technical Rescue	4 personnel	Included in assembly targets	Clarified special operations staffing	Relevant to regional specialty response
BLS EMS Unit	2 personnel	Not individually specified	2-person minimum broadly applied	Supports EMS baseline staffing
ALS Unit	2 personnel (1 paramedic)	Not individually specified	8-minute ALS framework reinforced	Critical to EMS reliability
Incident Commander	1 dedicated IC	First arriving officer may assume command	Structured command preserved	Supports incident management consistency
Rapid Intervention Crew	4 personnel dedicated	Required but flexible	Aligned with ERF framework	Critical to firefighter safety

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Table 2K-2 – Staffing and Operational Capability Relationship

Staffing Element	Operational Function Supported	System Effect if Reduced Staffing Occurs
Four-person engine staffing	Initial fire attack, water supply, search support	Reduced immediate tactical capability
Four-person truck staffing	Ventilation, search, ladder operations	Delayed critical truck functions
Dedicated Incident Commander	Command and control	Reduced scene management effectiveness
ALS staffing	Advanced patient care	Reduced clinical capability or delayed ALS
Rapid Intervention Crew	Firefighter rescue readiness	Reduced firefighter safety margin
Technical rescue staffing	Special operations capability	Delayed specialty intervention

Table 2K-3 – Staffing Implications for Washoe County Regional Deployment

Washoe Operating Environment	Staffing Consideration	Deployment Implication	Planning Observation
Reno Urban Core	Higher staffing supports ERF and reliability	Fewer units needed to reach benchmark	Most aligned with NFPA 1710 model
Sparks Growth Corridor	Growth increases demand and workload	Staffing affects travel and coverage resilience	May require future staffing adjustments
TMFPD Suburban / Fringe	Mixed density and longer travel distances	Staffing must be evaluated with travel time	Best reviewed as a deployment system
WUI Areas	Water supply and access challenges	Additional staffing may be needed for complexity	Supports WUI-specific planning
Rural Travel-Distance Zones	Longer response intervals	Per-unit staffing interacts with delayed reinforcement	Assembly time becomes critical
Boundary / Mutual Aid Areas	Cross-jurisdiction response matters	Mixed staffing affects ERF consistency	Supports regional coordination analysis

Operational Implications for Washoe County

Staffing configurations across the Washoe County system directly influence the ability to deliver effective response force within required timeframes. Variations in staffing levels, apparatus types, and deployment models affect initial tactical capability, incident escalation potential, and system reliability. In urban environments, four-person staffing supports immediate operational effectiveness and reduces reliance on additional arriving units. In suburban and WUI environments, where travel distances are longer, staffing must be evaluated in the context of response time and resource availability.

Conclusion

Apparatus staffing is a foundational component of emergency service delivery and is directly tied to operational capability, firefighter safety, and incident outcomes. The consolidated framework under NFPA 1750 supports a system-level evaluation of staffing that aligns with the regional analysis conducted in this study.

APPENDIX 2L – VOLUNTEER AND DEMAND ZONE ASSEMBLY MODEL

Purpose

This appendix defines the demand zone assembly model used in NFPA 1720 and preserved within NFPA 1750. It establishes how personnel assembly requirements vary based on population density, geography, and response environment, and provides a framework for evaluating performance in suburban, rural, and wildland–urban interface areas.

Overview

Unlike career deployment models that rely on fixed staffing per apparatus, the demand zone model evaluates performance based on the ability to assemble a specified number of personnel within defined timeframes. This approach is designed for volunteer and combination fire departments where staffing is not continuously assigned to apparatus. NFPA 1750 retains the demand zone model and integrates it into a unified standard, allowing for evaluation of mixed deployment environments within a single system.

Table 2L-1 – NFPA Demand Zone Assembly Requirements

Demand Zone	Population Density / Trigger	Minimum Personnel	Assembly Time	Compliance Standard	Operational Interpretation
Urban	>1,000 persons/sq mi	15	9 minutes	90%	Higher density and incident frequency require rapid assembly
Suburban	500–1,000 persons/sq mi	10	10 minutes	80%	Recognizes lower density with coordinated resource response
Rural	<500 persons/sq mi	6	14 minutes	80%	Accounts for lower density and longer travel distances

Demand Zone	Population Density / Trigger	Minimum Personnel	Assembly Time	Compliance Standard	Operational Interpretation
Remote	8 miles or more from a station	4	Travel time + 2 minutes	90%	Reflects sparse coverage and extended access constraints

Table 2L-2 – Demand Zone Model Application to Washoe County Environments

Washoe Service Environment	Likely Demand Zone Logic	Operational Consideration	Planning Relevance
Reno Urban Core	Urban / fixed-staffing benchmark	Higher density and ERF expectations	More aligned with NFPA 1710/1750 urban framework
Sparks Growth Areas	Urban to suburban transition	Rapid growth and uneven development	Supports mixed performance evaluation
TMFPD Suburban Fringe	Suburban	Longer travel and lower station density	Useful for deployment equity analysis
WUI Interface Areas	Suburban to rural	Access, water supply, and wildfire exposure	Supports risk-adjusted planning
Rural Travel-Distance Areas	Rural / remote	Extended response intervals and limited redundancy	Supports realistic assembly expectations

Table 2L-3 – Demand Zone Assembly Model vs Fixed Staffing Deployment Model

Element	Fixed Staffing Model (NFPA 1710)	Demand Zone Model (NFPA 1720 / 1750)	Relevance to Regional Analysis
Staffing Basis	Personnel assigned continuously to apparatus	Personnel assembled based on availability and zone	Supports mixed-system evaluation
Performance Measure	Travel and unit-specific benchmarks	Personnel assembly benchmark	Useful for different service environments
Travel Time Role	Primary operational metric	One component of overall assembly	Important in suburban and rural areas
Assembly Concept	ERF built from fixed-staffing response	ERF built from assembled resources	Supports regional performance interpretation
Best-Fit Environment	Urban / career deployment	Suburban, rural, volunteer, or combination	Useful for Washoe's varied geography
Analytical Use	Benchmarking fixed deployment performance	Benchmarking service equity in lower-density areas	Supports balanced system assessment

Operational Application

The demand zone model shifts performance evaluation from individual unit response to system-wide personnel assembly. This approach is particularly relevant in areas where staffing is not continuously available at fixed locations and where response is dependent on personnel travel to apparatus or incident locations. The model also recognizes that performance expectations should vary based on community characteristics, geographic constraints, and resource availability.

Application to Washoe County

While the primary agencies within Washoe County operate as career organizations, significant portions of the service area—particularly within Truckee Meadows Fire Protection District—reflect characteristics consistent with suburban, rural, and WUI environments. Extended travel distances, lower station density, and geographic constraints in these areas create conditions where response performance may align more closely with

demand zone assembly expectations than with urban, fixed-staffing benchmarks. The demand zone model provides a useful analytical framework for evaluating service equity, response expectations, and deployment effectiveness in these areas.

Integration with NFPA 1750

NFPA 1750 incorporates both fixed staffing and demand zone assembly models within a single framework, allowing systems to apply appropriate performance standards based on risk, density, and operational conditions. This integrated approach is particularly relevant to Washoe County, where urban, suburban, and WUI environments coexist within a single regional system.

Conclusion

The demand zone assembly model provides a flexible and risk-based approach to evaluating response performance in non-urban environments. Its integration into NFPA 1750 supports a comprehensive system-level analysis that accounts for geographic and operational variability across the Washoe County study area.

APPENDIX 2M – EMS SYSTEM PERFORMANCE AND INTEGRATION PLAN

Purpose

This appendix provides a comprehensive evaluation of the emergency medical services system serving Washoe County, including the Reno Fire Department, Sparks Fire Department, and Truckee Meadows Fire Protection District. The analysis establishes a framework for integrating fire-based advanced life support delivery with the Regional Emergency Medical Services Authority transport system while maintaining REMSA as the exclusive transport provider.

Current System Configuration

The Washoe County EMS system operates under a dual-provider structure. Fire agencies provide initial response and patient stabilization, while REMSA provides ambulance transport using a System Status Management deployment model. Hospitals serve as receiving facilities with varying capabilities that influence patient routing and system performance. This model is common in metropolitan environments; however, system components currently operate in parallel rather than as a unified system.

Core System Observations

The current system is coordinated but not fully integrated. Data governance, dispatch alignment, workforce planning, hospital throughput, and performance measurement remain fragmented. These conditions limit system optimization and reduce the ability to manage EMS delivery as a single regional performance system.

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Table 2M-1 – EMS System Performance Constraints

Constraint	Current Condition	Operational Impact	Planning Implication
Fire ALS Coverage	Inconsistent	Variable time to advanced care	Supports phased ALS expansion
Ambulance Availability	Demand-driven	Variable response reliability	Requires deployment coordination
Hospital Offload Delay	Present	Reduced unit availability	Supports hospital integration strategies
Dispatch Coordination	Fragmented	Inconsistent response performance	Requires dispatch alignment
Data Integration	Limited	Restricted system visibility	Supports shared performance framework

Table 2M-2 – ALS Deployment Model

Phase	Model	Description	Operational Outcome
Phase 1	ALS Squads	Targeted paramedic units in highest-demand areas	Rapid ALS intervention
Phase 2	Hybrid Model	Combination of ALS engines and ALS squads	Expanded ALS coverage
Phase 3	ALS Engines / Trucks	Paramedics assigned to frontline units in urban/suburban areas	Consistent ALS delivery

Integration with REMSA Transport System

REMSA remains the exclusive transport provider under this model. Integration focuses on aligning ambulance deployment with fire response patterns and improving system coordination. Fire-based ALS delivery reduces dependency on ambulance arrival for critical interventions while maintaining REMSA's role as the transport system operator.

Hospital System Integration

Hospitals are active components of the EMS system and directly influence pre-hospital performance. Hospital offload delays represent a primary system constraint. Integration strategies include tracking facility-specific wall times, balancing patient distribution, and aligning hospital surge capacity with EMS deployment.

Paramedic Training and Workforce Development

Expansion of ALS delivery requires a regional paramedic training pipeline. A regional training system should include academic instruction, clinical rotations, and field internships integrated across fire agencies and REMSA. Workforce development must align with long-term ALS deployment goals.

Table 2M-3 – EMS Integration Workgroup Structure

Component	Primary Responsibility	System Role
Executive Committee	Policy direction and oversight	Strategic leadership
Operational Committee	Deployment and integration planning	Operational coordination
Clinical Committee	Medical protocols and quality improvement	Clinical consistency
Data Committee	Performance measurement and reporting	System visibility and analytics
Workforce Committee	Training and staffing alignment	ALS and workforce development

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Table 2M-4 – EMS Implementation Timeline

Phase	Timeframe	Key Actions
Phase 1	0–12 months	Governance, metrics, ALS squads
Phase 2	12–36 months	Dispatch integration, ALS expansion, data alignment
Phase 3	36–72 months	Hybrid deployment, workforce alignment
Phase 4	72+ months	Full system integration with ALS engine and truck companies

Table 2M-5 – EMS System Integration Components

System Component	Current Condition	Integration Objective	Planning Implication
Dispatch	Fragmented	Unified call processing and response logic	Supports reliability
Fire ALS	Partially deployed	Expanded advanced care capability	Supports ALS access
Ambulance Deployment	System Status Management	Aligned deployment with fire demand	Supports transport reliability
Hospitals	Variable offload and routing impact	Balanced throughput and wall-time management	Supports system capacity
Clinical Governance	Distributed	Shared protocols and QA/QI	Supports consistency
Data Systems	Separated CAD/RMS/EMS platforms	Unified performance reporting	Supports analytics
Workforce	Agency-based development	Regional paramedic pipeline	Supports long-term deployment
Performance Measurement	Not unified	Shared system metrics	Supports accountability

Table 2M-6 – Expected EMS System Performance Benefits

Expected Outcome	Operational Benefit	Systemwide Effect
Reduced time to advanced care	Earlier ALS intervention	Improved patient outcomes
Improved ALS reliability	More consistent field care capability	Reduced variation across jurisdictions
Reduced fire unit commitment time	Faster ambulance handoff and transport alignment	Improved fire system availability
Better ambulance availability	Reduced service gaps	Improved EMS coverage
Improved data visibility	Clearer performance measurement	Stronger decision-making
Better governance and accountability	Coordinated policy and operations	Improved system management

Conclusion

The Washoe County EMS system is capable but not fully integrated. The recommended approach strengthens fire-based ALS delivery, maintains REMSA as an efficient transport provider, and aligns hospitals, dispatch, and data systems into a unified framework. This appendix establishes a clear pathway toward a coordinated, high-performance EMS system aligned with NFPA 1750 and the policy objectives of Senate Bill 319.

APPENDIX 2N – RESPONSE PERFORMANCE NORMALIZATION, AGENCY GOAL CROSSWALK, AND UNIFIED STANDARD SUPPORT

Purpose

This appendix provides the technical support framework for the response performance analysis contained in the main body of the Washoe County Regional Fire Services Study. Its purpose is to document the basis for comparing current agency response objectives, explain the normalization methodology used to evaluate performance across three separate fire agencies, and support the development of a recommended unified regional response performance standard.

Why Normalization Was Required

An additional challenge involves differing reliability expectations between agencies. Several legacy deployment systems continue to rely upon an 85% fractile performance measurement, while more modern fire service performance governance increasingly favors 90% reliability standards. The difference between 85% and 90% compliance may appear minor statistically, but operationally it represents a substantial increase in system reliability expectations, resource distribution pressure, and deployment accountability.

The three participating agencies do not currently operate under a single, directly comparable performance framework. Each agency uses different combinations of policy benchmarks, deployment assumptions, measurement points, and reliability thresholds. As a result, direct comparison of stated response performance is not possible without technical normalization.

Current Agency Framework Summary

In addition to differing response benchmarks, the three agencies currently operate at different levels of organizational maturity regarding performance governance, system measurement, and operational deployment analytics. Truckee Meadows Fire Protection District has implemented a more mature AVL-supported deployment environment that allows improved unit location tracking, closest-unit deployment evaluation, and more advanced system performance review. Reno Fire Department currently operates without formally adopted and consistently published response performance standards, creating challenges for direct policy comparison and accountability measurement. Sparks Fire Department occupies a transitional position between legacy deployment assumptions and

more modern performance-management practices, with portions of its Standards of Coverage and reflex models still reflecting historical benchmark structures.

The agencies also differ in dispatch philosophy and measurement methodology. Some performance systems emphasize travel time only, while others measure total response time from call receipt to arrival. Certain benchmarks remain operationally understood but not formally codified through adopted policy documents. These differences significantly complicate direct comparison and reinforce the need for normalized measurement criteria.

Reno Fire Department, Sparks Fire Department, and Truckee Meadows Fire Protection District each maintain different response performance objectives derived from separate planning documents, deployment studies, and operational frameworks. These differences affect how system performance is reported, interpreted, and compared. One agency may report travel time, another total response time, and another call receipt to arrival, even though each metric captures a different portion of the incident response process.

Normalized Analytical Structure Used in This Study

For purposes of regional comparison, the study evaluated performance using a common response sequence that reflects the full operational process from incident notification to unit arrival. The normalized framework includes call processing, turnout time, travel time, total response time, and effective response force (ERF). This structure allows meaningful comparison between agencies and provides the most defensible basis for evaluating a future regional or unified fire service model.

Response Time Performance Standards

Combined Agency Summary — Regional Analysis

Reno Fire Department **RFD**	Sparks Fire Department **SFD**	Truckee Meadows FPD **TMFPD**
Type: Career / Municipal **Stations:** 17 stations **Framework:** NFPA 1710 (career) **Jurisdiction:** City of Reno — urban core and outlying zones	**Type:** Career / Municipal **Stations:** 5 stations **Framework:** NFPA 1710 (career) **Jurisdiction:** City of Sparks — urban core and Spanish Springs area	**Type:** Career / Fire Protection District **Stations:** 11 stations **Framework:** NFPA 1710/1720 **Jurisdiction:** Unincorporated Washoe County — suburban through rural/WUI

Purpose: This document consolidates formally submitted response time performance standards for all three Washoe County regional fire agencies. Data for SFD and TMFPD reflect responses to the May 12, 2026 Regional Formal Information Request. RFD responded that it has not formally adopted a response standard and did not respond to the remaining questions; RFD entries are shown as "Not currently measured" throughout.

Note on RFD: *"We have not formally adopted a response standard." — Reno Fire Department. RFD did not provide standards for any performance category. All RFD cells reflect this status and are not presumed to indicate actual operational performance.*

RFD — No standard SFD — Adopted standard TMFPD — Adopted standard Not currently measured / No adopted standard

Performance Category	NFPA Reference Benchmark	Measurement Basis	Reno Fire Department (RFD)	Sparks Fire Department (SFD)	Truckee Meadows FPD (TMFPD)	Policy Rationale
			No Formally Adopted Standard	Standard | 90th Percentile	Standard | Reliability Standard	
Call Processing	*1:04 (NFPA 1710)*	Call receipt to dispatch	**Not currently measured** *No adopted standard*	**1:04** *90th Percentile*	**1:00 (HIGH) / 2:00 (all others)** *90th Percentile*	*Common CAD/dispatch benchmark; aligns with regional coordination*
Turnout Time – EMS	*1:00 (NFPA 1710)*	Dispatch to en route	**Not currently measured** *No adopted standard*	**1:00** *90th Percentile*	**1:20** *85th Percentile*	*Supports time-sensitive medical response; ALS-critical intervals*
Turnout Time – Fire	*1:20 (NFPA 1710)*	Dispatch to en route	**Not currently measured** *No adopted standard*	**1:20** *90th Percentile*	**1:40** *85th Percentile*	*NFPA 1710-aligned suppression standard for career departments*
Travel Time – Urban	*4:00 (NFPA 1710)*	En route to arrival	**Not currently measured** *No adopted standard*	**4:00** *90th Percentile*	**6:40** *85th Percentile*	*Supports dense urban deployment; based on station spacing*
Travel Time – Suburban	*Agency-defined*	En route to arrival	**Not currently measured** *No adopted standard*	**4:00** *90th Percentile*	**8:40** *85th Percentile*	*Reflects mixed-density road network conditions*

RFD — No standard SFD — Adopted standard TMFPD — Adopted standard Not currently measured / No adopted standard

Performance Category	NFPA Reference Benchmark	Measurement Basis	Reno Fire Department (RFD) No Formally Adopted Standard	Sparks Fire Department (SFD) Standard | 90th Percentile	Truckee Meadows FPD (TMFPD) Standard | Reliability Standard	Policy Rationale
Travel Time – Rural / WUI	*NFPA 1720 / Agency-defined*	En route to arrival	**Not currently measured** *No adopted standard*	**No declared standard** *90th Percentile*	**18:40** *85th Percentile*	*Recognizes geographic constraints while preserving accountability*
Total Response Time – Urban	*6:20 (NFPA 1710)*	Call receipt to arrival	**Not currently measured** *No adopted standard*	**6:20** *90th Percentile*	**8:00** *85th Percentile*	*Full-system urban benchmark; first unit on scene*
Total Response Time – Suburban	*Agency-defined*	Call receipt to arrival	**Not currently measured** *No adopted standard*	**6:20** *90th Percentile*	**10:00** *85th Percentile*	*Performance-driven suburban target; accounts for density variation*
Total Response Time – Rural / WUI	*NFPA 1720 / Agency-defined*	Call receipt to arrival	**Not currently measured** *No adopted standard*	**No declared standard** *90th Percentile*	**20:00** *85th Percentile*	*Risk-based rural/WUI benchmark; geography-adjusted target*
ERF – Urban Moderate Risk	*10:20 (NFPA 1710)*	Call receipt to full assignment arrival	**Not currently measured** *No adopted standard*	**10:20** *90th Percentile*	**Not currently measured** *Not currently measured*	*Initial fireground stabilization; first full deployment*

RFD — No standard SFD — Adopted standard TMFPD — Adopted standard Not currently measured / No adopted standard

Performance Category	NFPA Reference Benchmark	Measurement Basis	Reno Fire Department (RFD)	Sparks Fire Department (SFD)	Truckee Meadows FPD (TMFPD)	Policy Rationale
			No Formally Adopted Standard	Standard | 90th Percentile	Standard | Reliability Standard	
ERF – Suburban Moderate Risk	*Agency-defined*	Call receipt to full assignment arrival	**Not currently measured** *No adopted standard*	**10:20** *90th Percentile*	**Not currently measured** *Not currently measured*	*Reflects station spacing and staffing distribution*
ERF – Rural / WUI Moderate Risk	*NFPA 1720 / Agency-defined*	Call receipt to full assignment arrival	**Not currently measured** *No adopted standard*	**No declared standard** *90th Percentile*	**Not currently measured** *Not currently measured*	*Accounts for geographic spread and resource deployment time*

** NFPA reference benchmarks are shown as context only. They represent NFPA 1710 (career departments) or NFPA 1720 (rural/WUI) baseline values and are not presumed to reflect any agency's adopted standard.*

*** TMFPD uses the 85th percentile as its reliability threshold for most adopted standards; SFD uses the 90th percentile. This distinction is shown within each agency's data cells and should be considered when making cross-agency comparisons.*

Agency Narrative Responses — AVL, Closest-Unit, and Performance Data

Reno Fire Department (RFD)

RFD Response on Adopted Standards

"We have not formally adopted a response standard."

RFD did not provide responses to the remaining questions regarding AVL usage, Hexagon CAD operational plans, cross-boundary dispatch, or performance data submission. The absence of a formally adopted response standard means no current benchmark exists against which to evaluate RFD's operational performance on a defined reliability threshold. This represents a significant gap relative to regional analysis and Standards of Cover development needs.

Sparks Fire Department (SFD)

Completed by: Kevin Jakubos | Title: Division Chief of Admin/Training | Date: 5/20/2026

AVL and Closest-Unit Response

Q: Does your agency presently use AVL for closest unit response?

A: No, we do not currently use AVL.

Q: What is your agency's operational plan for using AVL and closest-appropriate-unit dispatching within Hexagon CAD, and how will you define 'appropriate' for purposes of unit selection?

A: Our operational plan is to use AVL with the new CAD system and send the closest resource (appropriate type and kind) regardless of boundary. We currently do this with TMFPD through our enhanced aid agreement. We respond in each other's jurisdiction in specific areas without a call transfer or aid request — i.e., SFD responds to TMFPD's jurisdiction as the closest resource, handles the call, TMFPD never hears about it, and TMFPD does the same in certain SFD jurisdictional areas.

Q: How will that approach interact with mutual and automatic aid agreements across jurisdictional boundaries, and are there circumstances under which your agency would dispatch — or accept — a unit from a neighboring agency based solely on proximity?

A: That is exactly what we do in enhanced areas — no issue from SFD.

Response Performance Data

Q: If available, please submit actual response performance data demonstrating performance based on the agency's stated benchmarks.

A: We have no current adopted standard to measure response, nor do we report or track any data, as we have very limited admin staff. We mention NFPA comparison to NFPA 1710, but do not do this in practice. We do not issue an annual report with any response data. We can provide some data from ESO Insights — see attached.

SFD Note on Standard Status

SFD's adopted standards in the table above reflect the benchmarks submitted in the formal information request response. However, SFD acknowledges that these are aspirational NFPA 1710-aligned values and are not formally tracked or reported against. The agency does not currently produce an annual performance report. ESO Insights data was referenced as the available data source.

Truckee Meadows Fire Protection District (TMFPD)

Completed by: Division Chief | Date: 5/19/2026

AVL and Closest-Unit Response

Q: Does your agency presently use AVL for closest unit response?

A: Yes, our dispatch CAD uses AVL to determine the closest TMFPD resource.

Q: What is your agency's operational plan for using AVL and closest-appropriate-unit dispatching within Hexagon CAD, and how will you define 'appropriate' for purposes of unit selection?

A: We will continue to use AVL as we have, with the intention that SFD and RFD will also begin using AVL. Tentatively, the agencies have agreed to use AVL to dispatch Engines, Brushes, and Battalion Chiefs. Future ability for Truck Companies is desired. Additional consideration for determining the closest Haz-Mat and Water Rescue Engines is in the works; however, only TMFPD currently designates engines for those two specialties.

Q: How will that approach interact with mutual and automatic aid agreements across jurisdictional boundaries, and are there circumstances under which your agency would dispatch — or accept — a unit from a neighboring agency based solely on proximity?

A: TMFPD intends to send/allow the closest unit(s) to respond regardless of jurisdiction. The new CAD has been programmed, tentatively between the agencies, with the closest Battalion Chief plus one agency Battalion Chief to ensure adequate representation of jurisdictional interests for incidents involving a multi-company response (i.e., First Alarms).

Response Performance Data

Q: If available, please submit actual response performance data demonstrating performance based on the agency's stated benchmarks.

A: The raw data for measuring performance was included in the original submission, under the folder '8-Dispatch, Response, and Deployment Data.' The attached images show our dashboard for tracking some of these metrics since January 2026.

TMFPD Note on Zone Classification

Some urban and suburban areas are classified as such due to zoning but lie outside normal travel distances and times from career stations. As an example, Palomino Valley shows areas classified as Suburban, but it is approximately 12.6 miles away and a 15-minute travel time from the nearest station. This geographic nuance should be considered when interpreting TMFPD's zone-based standards against field performance data.

— End of Combined Response Time Performance Standards Document —

A unified regional standard would also support more consistent governance oversight regarding AVL utilization, deployment analytics, closest-unit response policy, and performance transparency across all participating agencies. Adoption of a common measurement philosophy would significantly improve regional comparability and future strategic planning efforts.

Adoption of a unified regional response performance standard would create one of the most important foundational changes required for a future coordinated or regionalized fire service system. A common standard would improve comparability, accountability, deployment planning, governance support, and public communication across all participating agencies.

Limitations and Implementation Considerations

Although the recommended unified standard provides a strong technical framework, implementation will require additional policy and operational work. Not all current agency systems capture data identically, some dispatch and reporting structures will require alignment, and not all parts of the region should be held to identical urban response expectations. These limitations reinforce the importance of phased implementation and careful policy alignment.

Conclusion

This appendix provides the technical bridge between existing agency-specific response objectives and the recommended regional performance framework proposed in this study. Through normalization of measurement methodology, reliability expectations, and risk-based response categories, this study establishes a defensible foundation for evaluating current performance and planning future regional improvements.

APPENDIX 2O – DATA GOVERNANCE, VALIDATION, AND NERIS COMPLIANCE FRAMEWORK

Purpose

This appendix establishes a unified framework governing how data is defined, collected, validated, and reported across a combined fire agency serving Reno, Sparks, and Truckee Meadows Fire Protection District in coordination with the Regional Emergency Medical Services Authority. The framework integrates data standardization, validation of performance data, and compliance with the National Emergency Response Information System. The objective is to create a single, authoritative system of record that supports operational decision-making, performance measurement, and regulatory compliance.

Current State and Need for Integration

In addition to technological fragmentation, the participating agencies currently operate with inconsistent levels of operational auditing maturity and differing organizational emphasis regarding response time management and system performance oversight. While all agencies collect operational data, the extent to which data is formally validated, audited, analyzed, and incorporated into governance decision-making varies considerably.

The current regional environment lacks a formally adopted and standardized regional performance reporting expectations. Existing reporting structures are largely agency-specific and reflect differing operational philosophies, management priorities, and governance cultures. Certain agencies maintain more mature operational review and deployment analytics processes, while others continue to rely upon legacy reporting models or internally managed performance review systems.

The recently reviewed Reno operational response framework further reinforces these findings by demonstrating the absence of consistently adopted regional response performance governance standards despite shared operational environments and overlapping service delivery expectations.

The current system operates with multiple Computer Aided Dispatch platforms, separate Records Management Systems, and an EMS documentation system that is not fully integrated with fire-based reporting. Each agency applies different definitions to incident types, unit identifiers, time intervals, and reporting practices. These differences are manageable within individual agencies but are not sustainable within a unified regional model. Inconsistent definitions prevent accurate systemwide analysis and limit the ability to demonstrate performance improvement.

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Framework Overview

A unified governance framework must therefore extend beyond simply implementing shared CAD technology or interoperable software systems. Successful regional integration requires standardized governance expectations regarding performance auditing, reporting methodology, validation procedures, and executive oversight responsibilities. Technology alone cannot resolve inconsistencies in organizational performance governance or create regional accountability without corresponding policy alignment.

The unified system is built on three interdependent components: a standardized data dictionary, a formal validation protocol, and full NERIS alignment. Accepted performance data must meet both internal validation requirements and NERIS compliance standards. Data that does not meet both criteria shall not be used for official reporting or system evaluation.

Table 2O-1 – Data Dictionary Domains

Domain	Description
Incident	Incident type, priority, status, and classification
Unit	Unit identifier, type, staffing level, ALS/BLS designation
Personnel	Responder identification, certification, assignment
Patient/EMS	Patient care data aligned with national EMS standards
Time Stamps	Call processing, turnout, travel, and total response intervals
Location	Address, coordinates, jurisdiction, response zone, risk classification

Table 2O-2 – Standard Time Definitions

Time Component	Definition
Call Receipt	Time call is received by dispatch
Call Processing	Time from receipt to dispatch
Turnout	Time from dispatch to en route
Travel	Time from en route to arrival
Total Response	Time from call receipt to arrival

Time Component	Definition
Patient Contact	Time of first patient interaction
Hospital Arrival	Time patient arrives at receiving facility
Transfer of Care	Time patient is transferred to hospital staff

Table 2O-3 – NERIS Compliance Requirements

Requirement	Description
Data Mapping	All local fields aligned with NERIS structure
Interoperability	CAD, RMS, and EMS systems integrated
Data Exchange	Near real-time submission capability
Validation	Data must meet NERIS standards prior to reporting

Table 2O-4 – Validation Criteria

Criteria	Requirement
Completeness	Required fields populated
Consistency	Standard definitions applied
Reconciliation	CAD, RMS, EMS records aligned
Accuracy	Data reflects actual operations
Auditability	Records traceable and verifiable
NERIS Compliance	Meets federal reporting requirements

Table 2O-5 – Source-of-Truth Hierarchy

System	Primary Responsibility
CAD	Dispatch times and unit assignment
RMS	Incident classification and disposition
EMS System	Patient care documentation
GIS	Location validation and mapping

Table 2O-6 – Data Classification

Category	Definition
Certified	Fully validated and NERIS-compliant
Provisionally Accepted	Minor discrepancies, usable internally
Rejected	Does not meet validation standards
Excluded	Not applicable for performance analysis

Technology Integration and Architecture

The unified agency shall move toward an integrated technology environment including a harmonized dispatch system, interoperable or unified records management system, integrated EMS documentation, and a regional data warehouse. The data warehouse shall serve as the authoritative repository for all operational data and support reporting, analytics, and federal submission. System design should also support emerging technologies including Next Generation 911, cloud-based systems, predictive analytics, and integration with hospital electronic health records. Cybersecurity requirements, including CJIS and HIPAA compliance, must be incorporated into system design.

Table 2O-7 – Implementation Timeline

Phase	Timeframe	Key Actions
Phase 1	0–6 months	Establish governance and conduct baseline assessment
Phase 2	6–12 months	Standardize definitions and develop validation rules
Phase 3	12–24 months	Integrate systems and conduct pilot testing
Phase 4	18–30 months	Deploy data warehouse and certify performance data
Phase 5	24–36 months	Full operational integration and advanced analytics

Table 2O-8 – Data Quality Targets

Metric	Target
CAD Time Stamp Completeness	≥ 98%
RMS Coding Completeness	≥ 95%
EMS Data Linkage	≥ 95%
GIS Accuracy	≥ 99%
Duplicate/Error Rate	< 1%

Table 2O-9 – Data Governance Oversight Structure

Governance Function	Primary Responsibility	Planning Purpose
Data Governance Committee	Policy oversight and standards approval	Ensures enterprise consistency
CAD/RMS Technical Lead	System integration and technical alignment	Supports data interoperability
EMS Data Lead	Clinical and EMS documentation alignment	Supports EMS integration and quality
GIS/Data Analytics Lead	Spatial accuracy and performance analytics	Supports deployment and mapping analysis
Compliance / Reporting Lead	NERIS and regulatory reporting	Ensures external compliance

Strategic Importance

The establishment of a unified governance structure is equally important as technical system integration. Shared dispatch technology without unified reporting expectations and performance governance standards would likely perpetuate existing inconsistencies and limit the ability to conduct meaningful regional operational analysis.

This framework is essential to the success of a unified fire agency. It enables consistent performance measurement, supports equitable deployment decisions, ensures compliance with

federal requirements, and provides transparency to elected officials and the public. Without a unified data governance system, the combined agency will inherit fragmented practices and lack the ability to demonstrate measurable improvement.

Conclusion

A unified data governance, validation, and compliance framework is a foundational requirement for regional fire service integration. It ensures that all performance analysis is accurate, consistent, and defensible. This appendix establishes the structure necessary to support system-wide performance measurement, operational decision-making, and long-term planning under a unified regional fire service model.

APPENDIX 2P – WILDLAND–URBAN INTERFACE RISK ASSESSMENT AND REGIONAL INTEGRATION ROADMAP

Purpose

This appendix evaluates wildland–urban interface risk, regional growth trends, and community hazard conditions across Washoe County, including the Reno Fire Department, Sparks Fire Department, and Truckee Meadows Fire Protection District. The analysis establishes a framework to guide fire station siting, apparatus deployment, and community wildfire risk reduction under both the current system and a potential unified regional model. The objective is to transition from fragmented, agency-specific wildfire programs to a coordinated regional risk management system aligned with long-term growth and hazard conditions.

Regional Risk Environment and Growth

Washoe County presents an expanding wildland–urban interface risk profile driven by population growth, land use expansion, and environmental conditions. Population growth is concentrated in areas that directly interface with undeveloped fuels, including the North Valleys, Spanish Springs, Sun Valley, South Valleys, Washoe Valley, and the Interstate 80 corridor toward Verdi. These areas are characterized by increased structure exposure, longer travel distances, and limited access routes. Environmental conditions including wind, low humidity, topography, and fuel continuity contribute to rapid fire spread and increased operational complexity. Wildfire must be treated as a year-round planning condition rather than a seasonal issue.

Table 2P-1 – WUI Hazard Factors

Hazard Factor	Condition	Operational Impact
Fuel Load	Heavy in interface areas	Increased fire intensity and spread
Access/Egress	Limited in many developments	Delayed response and evacuation challenges
Water Supply	Variable availability	Reduced suppression effectiveness
Topography	Steep and wind-driven corridors	Rapid fire spread and access difficulty
Development Patterns	Expansion into WUI	Increased structure exposure

Table 2P-2 – High-Risk Growth Areas and Regional Planning Implications

Growth Area	Primary WUI Risk Characteristic	Operational Concern	Planning Implication
North Valleys / Cold Springs	Rapid expansion into fuels	Long travel distances and exposure	Priority siting and mitigation area
Spanish Springs / Sun Valley	Interface growth and constrained access	Evacuation and water supply challenges	Requires deployment and code focus
South Valleys / Galena	High-value structure exposure and slope influence	Rapid fire spread potential	Supports risk-adjusted station planning
Verdi / I-80 Corridor	Wind and transportation corridor exposure	Fast-moving fire and access complexity	Supports corridor-based planning
Washoe Valley	Open-space exposure and wind alignment	Large fire growth and evacuation complexity	Supports regional suppression planning

Current Agency Programs

Wildfire mitigation and risk reduction programs are currently distributed across agencies. Reno Fire Department has initiated modernization of its Community Wildfire Protection Plan and is building a more advanced planning framework. Truckee Meadows Fire Protection District maintains the most established mitigation and WUI operational program, including fuels reduction, Firewise support, defensible space, and code enforcement. Sparks Fire Department remains strategically important due to growth corridors and transportation exposure but does not currently maintain the same level of standalone wildfire planning infrastructure.

Table 2P-3 – Agency Program Comparison

Agency	Strength	Limitation
Reno	Advanced planning and CWPP modernization	Limited operational maturity
TMFPD	Strong operational mitigation programs	Less centralized planning framework
Sparks	Strategic geographic position and response capability	Limited dedicated WUI program structure

Table 2P-4 – System Strengths and Gaps

Category	Strength	Gap
Planning	CWPP development and modernization	Not regionally unified
Operations	Fuels and mitigation capability	Not consistently applied regionwide
Response	Strong regional capability	Not aligned with unified risk model
Community Programs	Firewise and public education	Not coordinated regionwide
Data and Metrics	Agency-level tracking exists	No unified regional system

Table 2P-5 – Facility Siting Criteria

Criteria	Consideration
WUI Risk Exposure	Proximity to high-risk growth areas
Access and Egress	Ability to reach constrained communities
Evacuation Support	Role in traffic control and life safety
Water Supply	Availability for suppression operations
Operational Support	Capability to support extended attack

Table 2P-6 – Apparatus Deployment Model

Area Type	Primary Apparatus	Supplemental Resources
Urban	Type 1 Engines and Trucks	ALS units, Safety and command vehicles
Suburban	Type 1 Engines with support units	Rapid attack units
WUI	Type 3 Engines, tenders	Dozers, hand crews, command units

Regional Integration Roadmap

A phased regional integration approach is recommended to align wildfire planning, mitigation, deployment, and capital investment. The roadmap should begin with governance and data alignment, then move toward regional prioritization, mitigation program integration, deployment alignment, and long-term funding and capital planning.

Table P-7 – WUI Integration Roadmap

Phase	Timeframe	Key Actions
Phase 1	0–6 months	Establish governance and data integration
Phase 2	6–12 months	Standardize risk assessment and prioritization
Phase 3	12–24 months	Integrate mitigation and community programs
Phase 4	12–24 months	Align code enforcement and development standards
Phase 5	18–36 months	Align deployment and resource allocation with risk
Phase 6	24–48 months	Establish funding strategy and capital planning
Phase 7	36–60 months	Transition to full regional integration

Funding and Policy Considerations

A coordinated regional wildfire program strengthens eligibility for state and federal funding, including hazard mitigation, fuels reduction, and wildfire defense grants. A unified approach improves competitiveness, supports long-term sustainability, and allows station development, specialized apparatus acquisition, and mitigation programming to be prioritized based on regional risk rather than jurisdictional boundaries.

Strategic Findings

Wildfire risk in Washoe County is increasing and is directly tied to growth patterns and environmental conditions. Existing agency programs are strong but fragmented. Facility siting and

apparatus deployment are not yet fully aligned with risk. A unified regional approach provides significant opportunity to improve risk reduction, response effectiveness, and long-term system sustainability.

Conclusion

The Washoe County wildfire risk environment requires a coordinated, regional approach that integrates planning, operations, community programs, and capital investment. This appendix establishes a roadmap for transitioning from a collection of independent programs to a unified wildfire risk management system aligned with future growth and hazard conditions.

APPENDIX 2Q – SUMMARY OF PRIOR STUDIES, FINDINGS, AND IMPLEMENTATION STATUS

This appendix provides a structured review of prior fire and emergency medical service studies relevant to Washoe County and the Truckee Meadows region. The purpose of this appendix is to support Technical Task 2 by documenting the principal findings of prior studies, identifying whether those findings remain relevant, and assessing the degree to which earlier recommendations appear to have been implemented. This appendix supports the "Lessons from Prior Studies and Continuing Operational Themes" section in the main body and demonstrates continuity between earlier analyses and current operational findings.

Table 2Q-1 – Prior Study Summary, Findings, and Continuing Relevance

Study / Year	Primary Focus	Key Findings	Observed Implementation Status	Continuing Relevance to Current Study
Sierra Forest Fire Protection District – Fire Service Alternatives (2003)	Evaluation of fire service alternatives and governance options for the Sierra Forest area	Identified the need to evaluate long-term fire service delivery alternatives, governance structure, and operational sustainability in a changing service environment. Established early regional concern regarding service alignment and jurisdictional efficiency.	Partial. The specific governance context has evolved over time, but the broader issues of service structure, district configuration, and long-term sustainability remain visible in later regional studies.	Useful as an early baseline demonstrating that governance, boundary alignment, and service sustainability concerns are longstanding regional issues rather than new conditions.
Sierra Forest Fire Protection District – Fire Service Alternatives, Phase 2 (2004)	Expanded evaluation of service alternatives, organizational structure, and delivery models	Continued evaluation of fire protection alternatives and reinforced the need for more sustainable structural and operational arrangements. Helped frame later discussions	Partial. Direct implementation is difficult to isolate due to later governance and regional changes, but many of the underlying service-delivery concerns remain present in the	Relevant primarily as historical context showing that structural fire service questions in Washoe County have been under review for more than two decades.

Study / Year	Primary Focus	Key Findings	Observed Implementation Status	Continuing Relevance to Current Study
		regarding regional efficiency and local service design.	broader Washoe system.	
Truckee Meadows Fire Protection District Standards of Cover (2009)	Risk-based deployment, response standards, and resource alignment	Identified the need for deployment based on risk, travel environment, and service demand. Reinforced the importance of response time objectives, standards of cover methodology, and matching station and apparatus placement to community need.	Partial. Many SOC concepts remain embedded in current TMFPD planning, but full regional alignment of standards and performance definitions remains incomplete.	Highly relevant to current Technical Task 2 analysis because it establishes the early framework for deployment effectiveness, response expectations, and risk-based planning.
Diamante Fire and Fire-Based EMS Master Plan (2010)	Fire-based EMS model, governance structure, and service integration	Supported the value of coordinated fire and EMS system design and reinforced the appropriateness of fire-based rapid medical response in conjunction with a broader EMS transport framework. Highlighted the need for governance clarity and service coordination.	Moderate. The region continues to operate in a hybrid fire-first response and REMSA transport model, indicating that major structural concepts remained influential even if not fully regionally integrated.	Important to the current study because it helps explain why EMS system performance must be evaluated together with fire operations rather than as a separate stand-alone issue.
Washoe County Emergency Medical Services Systems Analysis – TriData (2012)	EMS system performance, communications, governance, finance, and operational coordination	Found that the region generally provided high-quality EMS service, but identified fragmentation, weak	Partial. EMS quality and fire first-response remain strong, but communications, interoperability,	Extremely relevant. Many of the same communications, interoperability, and fire/EMS integration issues identified in

Study / Year	Primary Focus	Key Findings	Observed Implementation Status	Continuing Relevance to Current Study
		communications, insufficient interoperability, lack of transparency, limited EMS oversight, and distrust among system participants. Recommended improved dispatch coordination, better data systems, and stronger system governance.	dispatch coordination, and unified system oversight remain only partially resolved.	2012 remain central to the current Washoe analysis.
Blue Ribbon Committee Report on Regional Fire Service – ESCI (2014)	Regional fire service options, governance, administration, staffing, facilities, and service models	Examined multiple regionalization pathways and identified opportunities to improve service efficiency, standardize operations, align service levels, and evaluate alternative governance structures. Reinforced the need for regional rather than purely jurisdictional planning.	Limited to Partial. The report appears to have informed regional discussion, but no full structural regional model was implemented. Many of the issues identified remain active today.	Highly relevant because it establishes that regional service delivery and governance options have already been studied extensively and remain unresolved.
Reno Fire Department Operational and Administrative Analysis – CPSM / ICMA (2019)	Agency operations, deployment, administration, and organizational effectiveness	Focused on operational refinement, deployment effectiveness, and agency-level efficiency. Reinforced the need	Moderate at the agency level. Reno has continued evolving deployment and planning practices, though full regional application	Relevant as a major city-agency operational study that informs current understanding of deployment, workload, and performance

Study / Year	Primary Focus	Key Findings	Observed Implementation Status	Continuing Relevance to Current Study
		for modern performance management, deployment optimization, and clearer operating expectations within the Reno system.	of findings remains incomplete.	maturity in the urban core.
Truckee Meadows Fire Protection District Deployment Plan (2019)	Deployment efficiency, workload distribution, response gaps, and station/resource alignment	Identified demand imbalance, uneven workload, response gaps in growth areas, and the need to better align station and apparatus deployment with incident demand. Supported stronger mutual aid, improved CAD-to-CAD coordination, and system rebalancing.	Partial. Many of the deployment concerns remain current, although the plan appears to have informed more recent strategic and operational planning.	Directly relevant to current performance gap analysis, especially for growth-area coverage, suburban travel times, and deployment rebalancing.
Regionalization Model and Recommendations Memorandum – Federal Engineering (2023)	Regional dispatch, ECC interoperability, CAD integration, closest-unit response, and phased regionalization	Identified dispatch and communications fragmentation as a major system weakness. Recommended shared workflows, CAD interoperability, reduced call transfers, electronic call sharing, closest most appropriate resource dispatch, and phased regionalization rather than immediate full consolidation.	Early to Moderate implementation. Movement toward regional CAD, stronger coordination, and regional operational discussions indicate progress, but full interoperability and unified dispatch logic remain incomplete.	One of the most important prior studies for the current report because it directly addresses the operational integration issues at the center of Technical Task 2.

Table 2Q-2 – Cross-Cutting Findings from Prior Studies

Recurring Theme	**Repeated Finding Across Studies**	**Current Relevance** **Regional Performance Governance** **Formalized operational auditing** **Standardized performance adoption**
Regional Interdependence	The system already functions as a regional operating environment despite separate governance and administrative structures.	Supports current conclusion that operational integration can occur before full structural consolidation. Boundary-drop and closest-unit operational concepts now appear to be partially implemented through evolving AVL-supported deployment agreements.
Dispatch and Communications	Dispatch fragmentation, transfer delays, inconsistent workflows, and interoperability gaps have been repeatedly identified.	Confirms that dispatch integration remains the single highest-yield operational improvement opportunity.
Data and Performance Measurement	Agencies have historically used differing definitions, reporting practices, and performance frameworks.	Supports current emphasis on validated baseline data, normalization, and common reporting architecture.
Deployment and Coverage Gaps	Growth areas, travel constraints, and uneven workload distribution have been recurring concerns.	Reinforces current findings regarding North Valleys, suburban edge conditions, and WUI-related response complexity.
Fire / EMS Integration	Fire response and EMS system performance are interdependent and must be evaluated together.	Supports inclusion of EMS integration in Task 2 operational analysis.
Phased Regionalization	Prior studies generally support incremental operational alignment before full consolidation.	Validates current phased implementation and deployment improvement roadmap.

Appendix 2Q Summary

Current agency responses and operational coordination discussions continue to validate many of the recurring themes identified throughout prior regional studies, particularly regarding dispatch

fragmentation, inconsistent performance measurement methodologies, varying operational governance maturity, and the measurable operational benefits associated with closest-unit and closest-appropriate-unit deployment models.

Taken together, the prior studies show a remarkable degree of consistency over time. The region has repeatedly identified the same broad operational issues: fragmented dispatch and communications, inconsistent performance measurement, geography-driven deployment challenges, incomplete interoperability, and the need for phased regional coordination. While some progress has occurred—particularly in technology modernization, specialty-team cooperation, and strategic planning—the highest-value recommendations remain only partially implemented. Accordingly, the current Technical Task 2 analysis should be understood not as a departure from earlier work, but as the next operational step in a long-running regional effort to convert repeated diagnosis into measurable implementation.

APPENDIX 2R – REGIONAL FIRE SERVICE IMPLEMENTATION AND TRANSITION ROADMAP

Purpose

This appendix provides a structured, time-phased roadmap for transitioning from the current multi-agency fire service delivery model in Washoe County to a coordinated or unified regional system. It integrates governance formation, operational alignment, staffing, deployment, finance, and technology into a single implementation framework. This appendix is intended to support decision-makers, executive leadership, and policy bodies in understanding sequencing, risk, and resource requirements associated with system transformation.

Strategic Objective

The objective of the transition roadmap is to achieve a fully integrated, performance-driven regional fire service system that improves response reliability, balances workload, enhances firefighter safety, and aligns with nationally recognized standards including NFPA 1710, NFPA 1720, and NFPA 1750.

Guiding Principles

Implementation sequencing should also recognize and incorporate existing tentative regional AVL coordination agreements already underway between participating agencies. Early implementation of shared AVL visibility and dispatch logic provides an important operational foundation for future deployment integration and performance measurement standardization.

The transition framework is based on the following principles: operational continuity must be maintained at all times during transition; changes should be phased to minimize disruption to service delivery; governance decisions must precede operational integration; data standardization is required before performance accountability; labor engagement is critical at each phase of implementation; capital investments must align with long-term deployment strategy; and public communication must be proactive and continuous.

Transition Framework Overview

The transition is organized into four phases over an estimated 36 to 60 month period. Each phase builds on the previous phase and includes defined deliverables, decision points, and performance benchmarks.

Table 2R-1 – Transition Phase Overview

Phase	Timeframe	Primary Focus	Key Outcome
Phase 1 – Governance and Organizational Alignment	Months 0–6	Establish decision-making structure and formal agreements	Regional governance framework established
Phase 2 – Data, Systems, and Performance Integration	Months 6–18	Establish unified data and performance environment	Systemwide performance and reporting framework adopted
Phase 3 – Operational and Deployment Integration	Months 12–36	Align field operations, staffing, and deployment	Operationally coordinated regional response model implemented
Phase 4 – Full Organizational Integration and Optimization	Months 24–60	Achieve full system integration and long-term optimization	Unified regional fire service organization fully operational

Table 2R-2 – Phased Implementation Actions and Deliverables

Phase	Key Actions	Primary Deliverables	Decision Point
Phase 1	Governance model selection; board structure; MOU development; labor engagement; mission/vision development; steering committee formation	Governance formation documents; legal framework; initial financial baseline; communications plan	Formal adoption of governance structure by participating jurisdictions
Phase 2	Data dictionary implementation; metric alignment; GIS analysis; dispatch protocol alignment; governance body formation; NERIS alignment	Unified performance dashboard; baseline system performance report; GIS deployment model; interoperable dispatch framework	Adoption of systemwide performance standards and reporting structure
Phase 3	Closest-unit response implementation; first-due realignment; staffing model alignment; ERF standards; workload	Updated Standards of Cover; ERF compliance model; integrated run cards; SOPs/SOGs	Certification of operational readiness for fully coordinated regional system

Phase	Key Actions	Primary Deliverables	Decision Point
	balancing; specialty resource integration; training alignment		
Phase 4	Unified command structure; admin consolidation; capital improvement planning; labor alignment; EMS optimization; continuous improvement framework	Integrated organizational chart; capital improvement plan; long-term financial forecast; CRR/prevention alignment strategy	Full operational and administrative integration achieved

Table 2R-3 – Transition Risk and Mitigation Framework

Risk Category	Description	Mitigation Strategy
Governance Risk	Delay or disagreement in entity formation and authority structure	Early legal framework development and clear decision-making authority
Labor Risk	Workforce uncertainty, resistance, or bargaining complexity	Continuous engagement, transparency, and phased workforce alignment
Operational Risk	Service disruption during deployment or policy transition	Maintain existing response models during transition and validate changes through modeling
Financial Risk	Underestimated transition or capital costs	Develop multi-year financial plan with contingency modeling
Technology Risk	System integration failure or interoperability delays	Incremental system integration and redundancy planning
Performance Risk	Failure to achieve measurable service improvement	Establish baseline metrics and monitor improvement through each phase

Financial Considerations

The transition will require both one-time and ongoing investments. Major cost centers include governance formation and legal costs, technology integration, apparatus standardization and

replacement, facility upgrades, and workforce development. Offsetting efficiencies are expected through improved resource utilization, reduced duplication, balanced workload, and enhanced eligibility for state and federal funding.

Table 2R-4 – Transition Performance Measurement Framework

Metric	Purpose	Reporting Frequency	Planning Relevance
90th Percentile Response Time Compliance	Measure reliability of system performance	Quarterly	Supports accountability and deployment effectiveness
Turnout Time / Travel Time	Track component response performance	Quarterly	Supports operational improvement
Effective Response Force Assembly	Measure fireground capability and resource sufficiency	Quarterly	Supports staffing and deployment alignment
Unit Hour Utilization (UHU)	Assess workload balance and unit demand	Quarterly	Supports deployment and staffing optimization
Coverage Reliability and Geographic Equity	Evaluate service distribution and access	Quarterly	Supports regional equity and station planning
Fireground Outcomes and Loss Metrics	Assess incident outcome effectiveness	Annual	Supports strategic system evaluation

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Table 2R-5 – Appendix Crosswalk and Implementation Support Matrix

Supporting Appendix	Subject Area	Implementation Relevance
Appendix E	Deployment and GIS Modeling	Supports first-due realignment, coverage analysis, and deployment planning
Appendix I	NFPA Standards Analysis	Supports staffing, response, and standards alignment
Appendix N	Data Dictionary and Governance Framework	Supports performance reporting, validation, and accountability
Appendix P	Scenario Modeling and System Alternatives	Supports strategic option evaluation and transition sequencing

Conclusion

Recent operational coordination efforts and tentative AVL integration initiatives demonstrate that portions of this transition framework are already beginning to emerge within the participating agencies. These developments provide additional operational support for phased implementation of closest-appropriate-unit response models, specialty resource dispatch standardization, and expanded regional deployment analytics.

The transition to a regional fire service model in Washoe County is achievable through a structured, phased approach that prioritizes governance, data integration, operational alignment, and long-term optimization. The roadmap outlined in this appendix provides a defensible, scalable framework that aligns with national standards and positions the region for improved service delivery, fiscal sustainability, and operational resilience.