



COUNTY OF SAN MATEO

DEPARTMENT OF EMERGENCY MANAGEMENT

Date: June 15, 2023
From: Don Mattei, Interim Director
To: Emergency Services Council
Subject: San Mateo County Coastal Resilient Infrastructure Strategic Plan (CRISP)

RECOMMENDATION:

Approve the allocation of \$200,000 in Emergency Services Joint Powers Authority Budgetary Reserves for the San Mateo County Coastal Resilient Infrastructure Strategic Plan (CRISP).

BACKGROUND

The San Mateo County Coastal Region has been severely impacted by climate change and recent fire and storm events. On multiple occasions, and for extended durations, critical lifeline infrastructure (including but not limited to telecommunications and connectivity infrastructure, and transportation infrastructure) have been compromised or lost. Other infrastructure, including emergency radio communications infrastructure were also nearly lost due to power outages and road failures.

The failure or near failure of this infrastructure ecosystem directly impacts not only the residents of the San Mateo Coast, but also those who work there, those who respond to disasters on the Coast as part of mutual aid, and those who rely on infrastructure on the coast for emergency communications. The entire operational area is severely impacted when lifeline infrastructure is lost on the San Mateo Coast as resources are diverted and sometimes cut off from other regions of the operational area and evacuations may be required.

As a result of the largely unmitigated risks posed by the potential loss of lifeline infrastructure on the Coast, San Mateo County Supervisor Ray Mueller has proposed development of the San Mateo County Coastal Resilient Infrastructure Strategic Plan (CRISP). CRISP would analyze and evaluate Coastal infrastructure and identify areas that should be targeted to strengthen Coastal Resiliency. The results of the analysis and evaluation could then be used to support efforts with businesses, utility providers, and local, regional, state, and federal agencies to prioritize identified needs. The results would also allow emergency management agencies to anticipate, prepare for, and respond to climate-related disasters, safeguard, and secure critical lifeline infrastructure, coordinate multi-agency efforts, engage the community, and achieve long-term risk reduction

DEM will cross reference the proposed study with the "All-Hazard Evacuation Plan" to ensure that both studies are interoperable and do not study the same potential area.

DISCUSSION:

Approval of this item would allocate \$200,000 in funding and would enable DEM to issue a Request for Proposals, select, and engage a vendor to initiate the development of the CRISP. DEM will develop the RFP and create a working group, with representatives from the Public Safety, including representatives from the coastside communities, to create the RFP, select the vendor, and award the contract.

The strategic planning process will include but not be limited to the following:

Risk Assessment: The study should start with assessing the potential risks and vulnerabilities specific to the coastal area. This includes analyzing the impacts of climate change, sea-level rise, storm surges, erosion, and other coastal hazards. The assessment helps identify critical infrastructure at risk, vulnerable communities, and natural systems that provide protection or contribute to coastal resilience.

Infrastructure Evaluation: The study evaluates existing infrastructure systems, such as transportation networks, water and sewer systems, power grids, and telecommunications, to identify weaknesses and vulnerabilities. It considers their ability to withstand natural hazards, potential impacts on service delivery, and dependencies between different infrastructure sectors.

Energy and Power Grids: Energy infrastructure, including power generation plants, electrical grids, and fuel supply systems, ensures the provision of electricity to households, hospitals, emergency facilities, and critical infrastructure. A reliable energy supply is vital for maintaining communication systems, supporting medical equipment, providing heating or cooling in extreme weather, and powering emergency response efforts.

Transportation Systems: Transportation infrastructure, including roads, bridges, tunnels, and public transportation networks, plays a crucial role in emergency response and evacuation operations. These systems enable the movement of emergency personnel, supplies, and residents during disasters. Additionally, transportation infrastructure supports the delivery of essential goods and services, such as food, water, and medical supplies, to affected areas.

Telecommunications Networks: Telecommunications infrastructure encompasses the communication systems and networks that enable information exchange during emergencies. This includes telephone lines, cellular networks, internet connectivity, and emergency alert systems. Reliable and resilient telecommunications infrastructure facilitates emergency communication, dissemination of public warnings, coordination among response agencies, and access to information for affected residents.

Public Health Systems: Lifeline infrastructure also includes public health systems, such as hospitals, clinics, emergency medical services, and public health departments. These systems provide critical healthcare services, medical supplies, and emergency response capabilities during disasters. Maintaining the functionality of healthcare infrastructure is crucial for treating injuries, preventing the spread of diseases, and ensuring the well-being of affected individuals.

By safeguarding lifeline infrastructure, emergency management efforts can effectively mitigate and prepare for emergencies, provide critical services to the community, save lives, and support the overall resilience and recovery of affected areas.

For additional information on CRISP see Attachment A (*CRISP Background, Supervisor Ray Mueller*).

FINANCIAL IMPACT:

Emergency Services Joint Powers Authority Reserves are currently \$1,473,315. Approval will allocate \$200,000 to retain a consultant to develop the Coastal Resilient Infrastructure Strategic Plan (CRISP).

Agenda Item 5 - Attachment A

COASTAL RESILIENT INFRASTRUCTURE STRATEGIC PLAN

A San Mateo County Coastal Resilient Infrastructure Strategic Plan (CRISP) is critical from an emergency management perspective in the face of climate change affecting the San Mateo County Coastal region, including La Honda, Pescadero, Kings Mountain, Half Moon Bay, Pacifica, and the unincorporated areas of the San Mateo County Coast.

It enables emergency management agencies to anticipate, prepare for, and respond to climate-related disasters, safeguard and secure critical lifeline infrastructure, coordinate multi-agency efforts, engage the community, and achieve long-term risk reduction. By integrating climate change considerations into emergency management practices, the plan enhances the county's resilience and preparedness, ensuring the safety and well-being of coastal communities in the face of climate-related emergencies.

A. Protecting Coastside Public Health by Safeguarding Lifeline Infrastructure in Natural Hazard Events

Lifeline infrastructure refers to the critical systems and networks that are essential for the functioning of a community and supporting the basic needs of its residents during emergencies. From an emergency management perspective, lifeline infrastructure is of utmost importance as it ensures the continuity of essential services and helps save lives and protect public health. Lifeline infrastructure includes the following key sectors:

Water and Wastewater Systems: Water infrastructure provides a reliable supply of potable water for drinking, sanitation, and fire suppression. Wastewater systems manage the safe disposal and treatment of wastewater. During emergencies, maintaining the functionality of these systems is critical to prevent the spread of diseases and ensure access to clean water for both human consumption and firefighting operations.

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By safeguarding lifeline infrastructure, emergency management efforts can effectively respond to emergencies, provide critical services to the community, save lives, and support the overall resilience and recovery of affected areas.

B. How Would the CRISP Be Created?

The CRISP would be a County led collaboration and coordination with special districts and cities within the San Mateo County Coastal region that would incorporate their infrastructure projects, identify new infrastructure projects, and create a cohesive and integrated approach under which coastal resilience can be achieved. This collaborative effort will ensure that all stakeholders are aligned, resources are maximized, and infrastructure projects collectively contribute to the overall resilience and sustainability of the coastal area.

The creation of the CRISP would be built upon:

Risk Assessment: The plan starts with an assessment of the potential risks and vulnerabilities specific to the coastal area. This includes analyzing the impacts of climate change, sea-level rise, storm surges, erosion, and other coastal hazards. The assessment helps identify critical infrastructure at risk, vulnerable communities, and natural systems that provide protection or contribute to coastal resilience.

Infrastructure Evaluation: The plan evaluates existing infrastructure systems, such as transportation networks, water and sewer systems, power grids, and telecommunications, to identify weaknesses and vulnerabilities. It considers their ability to withstand natural hazards, potential impacts on service delivery, and dependencies between different infrastructure sectors.

Collaboration and Information Sharing: The county would engage in collaborative efforts with special districts and cities to establish open lines of communication and information sharing. Regular meetings, workshops, and forums can be organized to discuss and exchange information on infrastructure projects, priorities, and challenges.

Data Collection and Assessment: The county would collect and analyze data related to infrastructure projects from special districts and cities. This includes information on the condition, vulnerability, and resilience of existing infrastructure systems. By conducting joint assessments, the county can gain a comprehensive understanding of the infrastructure landscape and identify common vulnerabilities or interdependencies.

Integration of Infrastructure Projects: The County Coastal Resilient Infrastructure Strategic Plan would aim to integrate the infrastructure projects of special districts and cities within its overall

framework. This could involve aligning project goals, identifying synergies, and promoting coordination between different agencies. The plan would identify priority projects that contribute to coastal resilience and support their implementation through a coordinated approach.

Emergency Response and Recovery: The plan includes provisions for emergency response and recovery efforts should critical infrastructure fail. It identifies protocols, communication systems, and coordination mechanisms among relevant stakeholders to effectively respond to and recover from coastal hazards. This may involve establishing evacuation routes, emergency shelters, early warning systems, and procedures for post-disaster recovery and reconstruction.

Funding and Resource Allocation: The county could explore opportunities for collaborative funding and resource allocation for infrastructure projects. This might involve seeking Federal and State grants, establishing intergovernmental agreements, or leveraging shared resources to support the implementation of identified projects. By pooling resources, special districts, cities, and the county can achieve greater efficiency and maximize the impact of limited resources. Projects could be ranked in the strategic plan based on interdependency and public health safety impacts.

Monitoring and Reporting: The county can establish mechanisms for monitoring the progress and outcomes of infrastructure projects implemented by special districts and cities. Regular reporting and sharing of best practices can foster mutual learning, encourage accountability, and ensure that projects are aligned with the overall goals of the strategic plan. This information exchange allows for continuous improvement and adaptation of strategies based on the evolving needs and challenges of the coastal area.

By incorporating the infrastructure projects of special districts and cities within the County Coastal Resilient Infrastructure Strategic Plan, a cohesive and integrated approach to coastal resilience can be achieved. This collaborative effort ensures that all stakeholders are aligned, resources are maximized, and infrastructure projects collectively contribute to the overall resilience and sustainability of the coastal area.

C. Key Considerations in the creation of the CRISP

Language and Cultural Accessibility

The CRISP is important to address language and cultural accessibility of information.

Language Accessibility: Language barriers can hinder effective communication during emergencies, making it challenging to disseminate crucial information to all residents. An analysis of different language backgrounds allows for the identification of communities that may require language assistance services, translation of emergency materials, or multilingual communication channels. By addressing these language barriers, a resilient infrastructure plan ensures that emergency information reaches all residents, enabling them to make informed decisions and take necessary actions to protect their safety.

Cultural Sensitivity and Competency: Cultural backgrounds play a significant role in how individuals perceive and respond to emergencies. By understanding and addressing different cultural backgrounds, a resilient infrastructure plan can ensure that emergency response efforts are culturally sensitive and competent. This includes considering cultural practices, beliefs, and preferences when

designing evacuation plans, establishing emergency shelters, or providing support services. Cultural competence fosters trust, encourages community engagement, and promotes cooperation during emergencies, leading to more effective response and recovery.

Inclusive Community Engagement: An analysis of different language and cultural backgrounds enables inclusive community engagement in emergency preparedness and resilience efforts. It allows for the identification of community leaders, cultural organizations, and religious institutions that can play a crucial role in disseminating emergency information, providing support, and mobilizing community resources. Involving these stakeholders in the planning process ensures that the needs, concerns, and perspectives of diverse communities are considered, promoting inclusivity and strengthening community resilience.

Targeted Outreach and Education: Different language and cultural backgrounds often require targeted outreach and education to effectively prepare residents for emergencies. By conducting an analysis, a resilient infrastructure plan can identify communities that may require tailored educational materials, culturally appropriate training sessions, or community-based preparedness initiatives. This targeted outreach helps bridge knowledge gaps, increases awareness, and empowers residents to take proactive measures to protect themselves and their communities during emergencies.

Social Cohesion and Integration: Addressing different language and cultural backgrounds in a resilient infrastructure plan promotes social cohesion and integration within the community. By recognizing and valuing diverse identities, the plan fosters a sense of belonging and inclusiveness. This, in turn, strengthens social networks, encourages cooperation, and enhances community resilience. When diverse communities feel supported and included, they are more likely to actively participate in emergency response efforts and support their neighbors in times of crisis.

Seniors, Access and Functional Needs and Vulnerable Coastside Residents

The CRISP is particularly important for seniors, those with access and functional needs, and vulnerable residents on the San Mateo County coast.

Safety and Security: Seniors, individuals with access and functional needs, and vulnerable residents are often more susceptible to the impacts of natural disasters and emergencies. They may have limited mobility, medical conditions, or require specialized care. A resilient infrastructure plan addresses their safety and security by ensuring that emergency shelters, healthcare facilities, and essential services are accessible, well-equipped, and prepared to meet their unique needs during crises.

Accessible Transportation: Seniors and individuals with access and functional needs often rely on accessible transportation options to access healthcare services, social activities, and daily necessities. A resilient infrastructure plan should prioritize accessible public transportation, paratransit services, and safe pedestrian infrastructure to ensure their mobility and independence. Analyzing transportation infrastructure and identifying gaps in accessibility helps create a transportation network that caters to their specific needs.

Health Services and Facilities: Seniors and vulnerable residents may rely heavily on healthcare facilities, home healthcare services, and pharmacies. A resilient infrastructure plan should assess the

resilience of these critical health services and facilities, ensuring they have backup power, robust communication systems, and disaster response protocols in place. This analysis helps safeguard their access to essential healthcare services, medications, and medical equipment during emergencies.

Community Engagement and Support: Resilient infrastructure plans should also foster community engagement and support for seniors, those with access and functional needs, and vulnerable residents. This can involve creating community centers, neighborhood networks, and support systems that facilitate social interaction, information sharing, and access to resources. Analyzing community infrastructure and identifying areas for improvement ensures that these individuals have a strong support network in place during emergencies and can actively participate in community life.

Education and Preparedness: A resilient infrastructure plan should prioritize education and preparedness initiatives tailored to the specific needs of seniors, individuals with access and functional needs, and vulnerable residents. This can include outreach programs, training sessions, and public awareness campaigns focused on disaster preparedness, evacuation procedures, and emergency communication methods. By analyzing their unique needs and vulnerabilities, the plan can ensure that they have the necessary information and resources to effectively respond to emergencies and protect their well-being.

D. Lifeline Infrastructure Considerations for Project Prioritization in the CRISP

1. Sewer and Water Infrastructure

Vulnerability to Sea-Level Rise: The San Mateo County coast is highly vulnerable to sea-level rise, which poses significant risks to sewer and water infrastructure. Rising sea levels can lead to increased coastal flooding, saltwater intrusion into groundwater sources, and inundation of wastewater treatment plants. An analysis of the existing sewer and water infrastructure will identify vulnerable areas and help develop strategies to adapt and protect these systems from the impacts of sea-level rise.

Vulnerability to Drought: A strategic plan helps to address water scarcity issues caused by drought such as implementing water-saving technologies, promoting water reuse and recycling, and reducing water losses through leak detection and repair.

The plan can focus on diversifying the water supply sources to reduce dependence on a single vulnerable source, such as surface water or groundwater. It may include exploring alternative sources like desalination, rainwater harvesting, or importing water from other regions.

The plan can assess the vulnerability of existing infrastructure to drought impacts and identify necessary upgrades or modifications. It can include actions such as improving water storage capacity, constructing additional reservoirs, upgrading water treatment facilities, and expanding water distribution networks to ensure adequate water supply during drought periods.

Environmental Protection: The San Mateo County coast is home to diverse ecosystems and sensitive habitats. Proper management of sewer and water infrastructure is crucial to prevent the discharge of untreated wastewater and the contamination of coastal waters, wetlands, and marine ecosystems. An analysis can identify potential risks and vulnerabilities in the existing infrastructure,

allowing for the implementation of measures to protect the environment and preserve the ecological balance.

Public Health and Safety: The integrity of sewer and water infrastructure directly affects public health and safety. Inadequate or compromised systems can lead to the release of untreated wastewater, posing risks of waterborne diseases and contamination of drinking water sources. An analysis of the infrastructure will help identify potential vulnerabilities, such as aging pipes or outdated treatment facilities, and enable the implementation of improvements to ensure the provision of safe and reliable water and sanitation services to coastal communities.

Community Resilience: A resilient infrastructure plan should aim to enhance community resilience in the face of natural hazards. By analyzing sewer and water infrastructure, it is possible to identify critical areas where improvements are needed, such as the installation of backup generators for water pumping stations or the elevation of wastewater treatment plants above projected flood levels. These measures will ensure that communities along the coast can maintain essential services during and after disasters, supporting their resilience and recovery.

Long-Term Cost Savings: Investing in an analysis of sewer and water infrastructure as part of a resilient infrastructure plan can lead to long-term cost savings. By identifying vulnerabilities and implementing necessary improvements, it is possible to prevent or mitigate damage caused by natural hazards. This proactive approach can reduce the need for costly emergency repairs and minimize service disruptions. Additionally, an analysis can identify opportunities for implementing sustainable practices such as water reuse or energy-efficient infrastructure, resulting in long-term cost savings and environmental benefits.

Power Infrastructure

Emergency Preparedness and Response: Power infrastructure plays a critical role in emergency preparedness and response. During natural disasters or emergencies, such as earthquakes or storms, power outages can occur, disrupting essential services and hindering emergency response efforts. An analysis of power infrastructure can identify vulnerabilities and areas at high risk of damage, enabling the development of strategies to strengthen the resilience of the power grid and minimize disruptions during emergencies.

Community Resilience: A resilient power infrastructure is essential for maintaining community resilience. Power outages can have far-reaching consequences, affecting homes, businesses, and critical facilities such as hospitals, emergency response centers, and water treatment plants. By analyzing the power infrastructure, the plan can identify areas in need of backup power systems, microgrids, or other resilient solutions, ensuring that communities can continue to function, access vital services, and recover quickly after a disaster.

Economic Continuity: Reliable power infrastructure is crucial for sustaining economic activities in the county. Businesses, particularly those in sectors such as technology and manufacturing, rely heavily on a consistent and uninterrupted power supply. Power outages can result in significant economic losses, disruption of operations, and loss of productivity. An analysis of power infrastructure can identify

vulnerabilities, prioritize critical business areas, and implement measures to enhance power supply reliability, minimizing the impact of outages on the local economy.

Renewable Energy Integration: The analysis of power infrastructure presents an opportunity to assess the integration of renewable energy sources. San Mateo County has ample potential for renewable energy generation, including solar, wind, and geothermal resources. By analyzing the power infrastructure, the plan can identify suitable locations for renewable energy projects and implement strategies to transition towards a cleaner and more sustainable energy mix. This integration of renewable energy can enhance energy resilience, reduce dependency on fossil fuels, and contribute to the county's climate goals.

Grid Modernization and Resilience: Analyzing power infrastructure provides insights into opportunities for grid modernization and resilience. This includes upgrading aging infrastructure, improving grid monitoring and control systems, and incorporating advanced technologies such as smart grids, energy storage systems, and demand response mechanisms. By embracing grid modernization, the plan can enhance the efficiency, flexibility, and reliability of the power system, allowing for better integration of renewable energy, reduced energy losses, and improved response to disruptions.

Telecommunications and Connectivity Infrastructure

Emergency Communication and Public Safety: Reliable telecommunications infrastructure is vital for emergency communication and public safety. During crises or disasters, effective communication is essential for coordinating emergency response efforts, disseminating critical information to the public, and ensuring the safety of residents. An analysis of telecommunications infrastructure can identify vulnerabilities, such as areas with weak network coverage or high-risk locations for infrastructure damage, allowing for targeted improvements and ensuring uninterrupted communication during emergencies.

Community Connectivity and Access: Telecommunications infrastructure plays a pivotal role in maintaining community connectivity and access to essential services. It enables residents to communicate with their loved ones, access vital information, and engage in online services. In a resilient infrastructure plan, analyzing telecommunications infrastructure helps identify areas with inadequate coverage or limited access, allowing for the deployment of solutions such as additional cell towers, improved broadband connectivity, or mobile communication units to ensure equitable access for all communities along the coast.

Business Continuity and Economic Resilience: A resilient telecommunications infrastructure is critical for business continuity and economic resilience. In today's interconnected world, many businesses rely on digital connectivity to operate effectively. Disruptions to telecommunications networks can result in significant economic losses and hinder recovery efforts. Analyzing the telecommunications infrastructure enables the identification of vulnerable areas, the implementation of backup systems, and the establishment of redundancy measures to ensure that businesses can maintain their operations and continue to contribute to the local economy during and after emergencies.

Remote Work and Digital Services: The COVID-19 pandemic has highlighted the importance of robust telecommunications infrastructure for remote work and the delivery of digital services. As

remote work and online services become more prevalent, a resilient telecommunications infrastructure becomes indispensable. An analysis of the infrastructure can identify areas with limited broadband capacity or inadequate network speeds, allowing for targeted investments in broadband expansion, fiber optic networks, or satellite internet services. This enables residents and businesses to thrive in a digital economy and adapt to changing work dynamics.

Technological Advancements and Innovation: Analyzing telecommunications infrastructure provides an opportunity to embrace technological advancements and innovation. As technology continues to evolve rapidly, a resilient infrastructure plan should consider emerging technologies that can enhance connectivity, such as 5G networks, Internet of Things (IoT) applications, and smart city solutions. Assessing the existing infrastructure helps identify areas for improvement and enables the integration of innovative solutions, fostering a technologically advanced and future-ready telecommunications ecosystem.

Transportation Infrastructure

Disaster Response and Evacuation: As recently illustrated in the 2023 winter storms, during natural disasters or emergencies, a resilient transportation infrastructure is critical for effective disaster response and evacuation. Analyzing Coastside transportation infrastructure allows for identifying vulnerable areas, such as roadways or bridges prone to damage, and developing strategies to enhance their resilience. This ensures that emergency services can reach affected areas promptly and that residents can evacuate safely, minimizing potential loss of life and property.

Connectivity and Accessibility: A resilient transportation infrastructure is vital for maintaining connectivity and accessibility within the San Mateo County coast. It ensures that residents have reliable transportation options for commuting, accessing essential services, and participating in economic activities. Analyzing transportation infrastructure helps identify areas with limited capacity, congestion, or inadequate connectivity, enabling the development of targeted improvements such as road expansions, public transit enhancements, or bike and pedestrian infrastructure to ensure equitable access for all residents.

Climate Change Adaptation: With the increasing impacts of climate change, a resilient transportation infrastructure plan must consider adaptation strategies. Rising sea levels and more frequent extreme weather events can lead to coastal flooding and erosion, affecting roadways, bridges, and transportation networks. Analyzing transportation infrastructure helps identify vulnerable areas and develop strategies such as elevating roadways, constructing sea walls, or implementing drainage systems to mitigate the impacts of climate change and maintain transportation connectivity.

Sustainable and Resilient Mobility: A resilient transportation infrastructure plan should also prioritize sustainable and resilient mobility options. This includes promoting public transit systems, investing in electric or hybrid vehicles, and encouraging active transportation modes like walking and cycling. Analyzing transportation infrastructure provides an opportunity to identify areas for expanding public transit coverage, implementing charging stations for electric vehicles, and improving pedestrian and cycling infrastructure. These measures reduce dependency on single-occupancy vehicles, lower greenhouse gas emissions, and enhance the overall resilience of the transportation system.

Economic Growth and Efficiency: A resilient transportation infrastructure plan contributes to economic growth and efficiency. Well-maintained roadways, efficient public transit systems, and reliable freight transportation networks are vital for businesses to operate smoothly and facilitate the movement of goods and services. Analyzing transportation infrastructure allows for identifying areas with safety issues and promote economic productivity within the San Mateo County coast.

Healthcare Infrastructure

Critical Role in Emergency Response: Healthcare infrastructure plays a vital role in emergency response and recovery efforts. During disasters or public health emergencies, hospitals, clinics, and medical facilities become essential for providing medical care, treating injuries, and managing public health needs. Due to the Coastside potentially being cut off from Bayside Healthcare providers in a Natural Hazard Event, analyzing healthcare infrastructure ensures that what facilities do exist are resilient and well-equipped to handle the increased demand and provide timely and effective healthcare services during emergencies.

Protection of Public Health: A resilient infrastructure plan must prioritize the protection of public health. Healthcare infrastructure on the San Mateo County coast plays a crucial role in maintaining public health services, including routine care, vaccinations, and disease surveillance. By analyzing healthcare infrastructure, the plan can identify vulnerabilities, assess capacity, and develop strategies to ensure the continuous operation of healthcare facilities and the provision of critical public health services during and after emergencies.

Support for Vulnerable Populations: Vulnerable populations, such as the elderly, individuals with chronic illnesses, and those with limited access to healthcare such as farmworkers, are particularly at-risk during emergencies. Analyzing healthcare infrastructure helps identify gaps in services and accessibility for these populations. The plan can address these gaps by integrating strategies to ensure that healthcare facilities are equipped to meet the unique needs of vulnerable populations, including providing specialized medical care, accessible transportation options, and communication systems to reach and support these individuals during emergencies.

Interdependencies with Other Infrastructure Sectors: Healthcare infrastructure relies on other critical infrastructure sectors, such as power, water, and telecommunications, to operate effectively. An analysis of healthcare infrastructure within a resilient infrastructure plan allows for understanding the interdependencies and potential vulnerabilities of these systems. By identifying these interdependencies, the plan can develop strategies to ensure backup power systems, alternative water sources, and reliable communication networks to support healthcare facilities during emergencies and maintain the continuity of care.