



U.S. Department of Defense
Office of Local Defense
Community Cooperation

Defense Community Infrastructure Program: Lessons Learned and Best Practices

ADC Installation Innovation Forum

Presented By:

Daniel Glasson, Deputy Director for Programs



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Panelists

- **Daniel Glasson**, Deputy Director for Programs, DoD Office of Local Defense Community Cooperation
- **Matt J. Posner**, Executive Director, Pensacola & Perdido Bays Estuary Program, Escambia County, FL
- **Erika Schuyler**, Murraysmith Principal Engineer, Kitsap County, WA
- **Janet Nichols**, Military Community Liaison, Manhattan, KS
- **Don Mills**, Deputy Director for Public Works & Transportation, St. Mary's County, MD
- **Maryam Bral**, Chief Engineer, United Water Conservation District, Oxnard, CA



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Defense Community Infrastructure Pilot Program (DCIP) – Summary

- DCIP is a competitive grant program that addresses deficiencies in community infrastructure, supportive of a military installation, in order to enhance military value, installation resilience, and military family quality of life.
- Authorized in the FY 2019 NDAA, Section 2391(d) of Title 10, United States Code (10 U.S.C. 2391), authorizes the Secretary of Defense to, “make grants, conclude cooperative agreements, and supplement funds available under Federal programs administered by agencies other than the Department of Defense”, for projects “owned by a State or local government, or a not-for-profit, member-owned utility service to address deficiencies in community infrastructure supportive of a military installation.”
- Congress approved \$50 million in funding in FY 2020, supporting 16 projects, and \$60 million in FY 2021, supporting 13 additional projects.



Eligible Projects

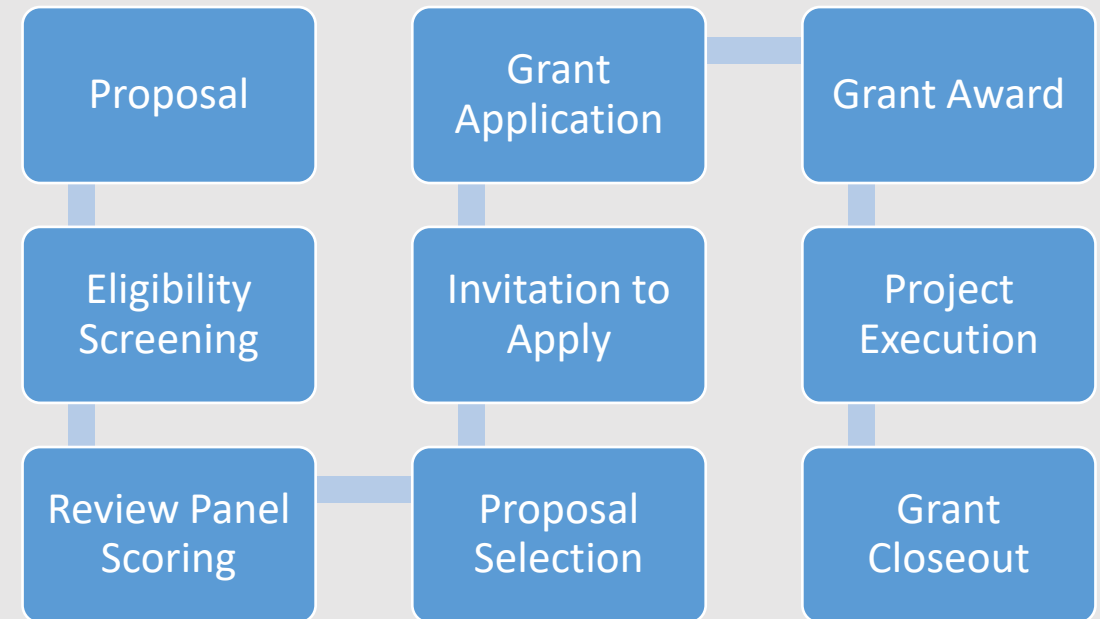
Eligible community infrastructure projects are any complete and useable transportation project, school, hospital, police, fire, emergency response, or other community support facility; or water, wastewater, telecommunications, electric, gas, or other utility infrastructure project, that:

- support a military installation;
- will enhance military value, military installation resilience or military family quality of life at the supported military installation;
- are endorsed by the local installation commander representing the installation benefitting from the proposed project; and,
- are construction-ready.



DCIP Process

- Subject to annual Congressional appropriations for DCIP, OLDCC publishes a notice of Federal Funding Opportunity (FFO).
- Release of the FFO is dependent on timing of the appropriation as well as any prescribed changes to the program authority and selection criteria.
- Proposals are competitively reviewed and successful proposers are invited to submit a grant application.
- Grants are awarded to successful applicants prior to 30 September.





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Lessons Learned from Successful Proposers



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Matt Posner

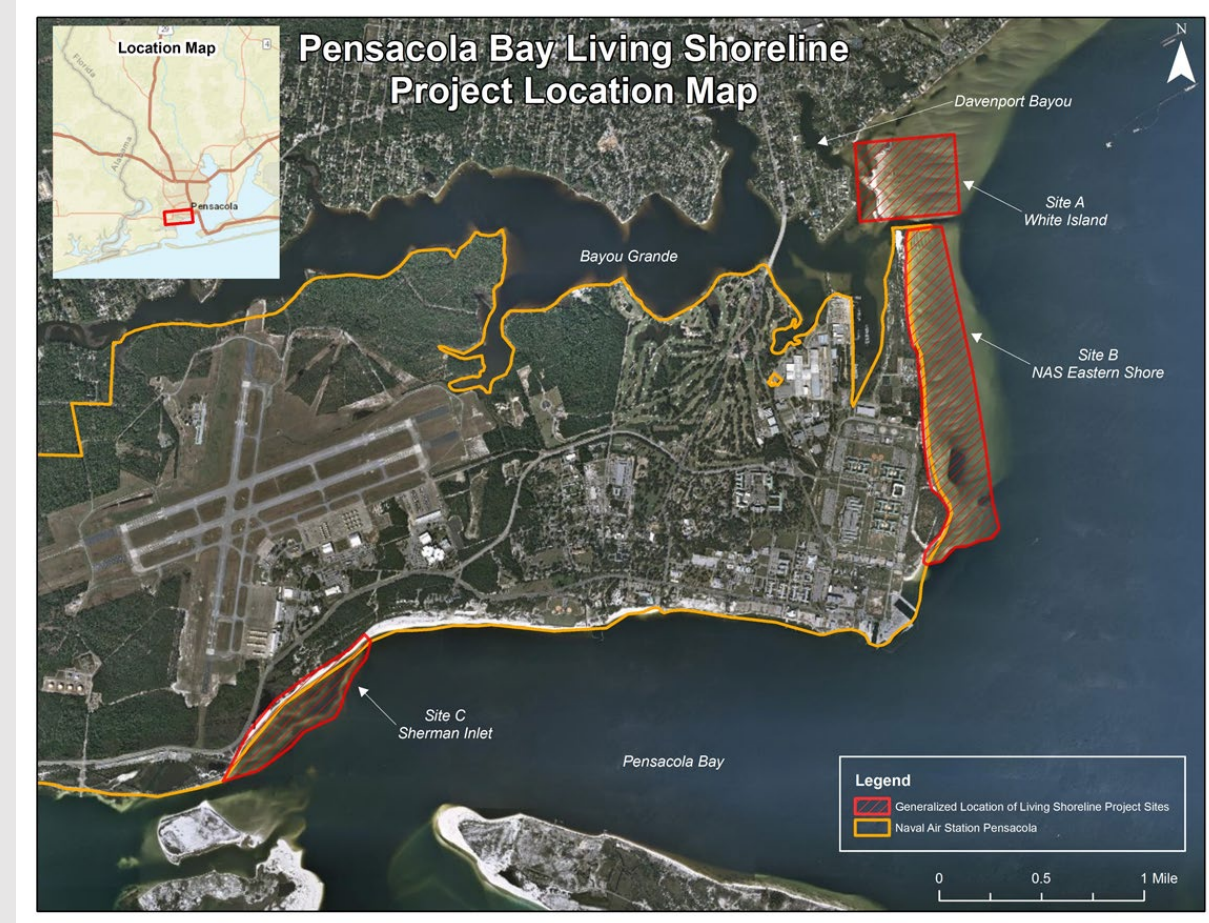
Executive Director, Pensacola & Perdido Bays Estuary Program, Escambia County,
FL



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Naval Air Station Pensacola Living Shoreline

- a) Large-scale living shoreline project offshore of NAS Pensacola
 - a) 5,300 linear feet of headland and subtidal breakwaters
- b) Goal is to enhance installation resilience through green infrastructure
 - i. Sherman Inlet has lost approximately 400 feet of shoreline width
 - ii. Increasing risk to thoroughfare, wastewater force main, aviation fuel line, and communication duct
 - iii. Increasing risk to implementing the installation's mission
 - iv. NASP and County staff have coordinated project development since 2014
- c) Project milestones: 60% design complete; permits submitted
 - i. Anticipate construction commencement in fall 2022
 - ii. Regulatory efficiencies through the Gulf Coast Interagency Environmental Restoration Work Group
 - iii. Close coordination with NASP to minimize attractive nuisances

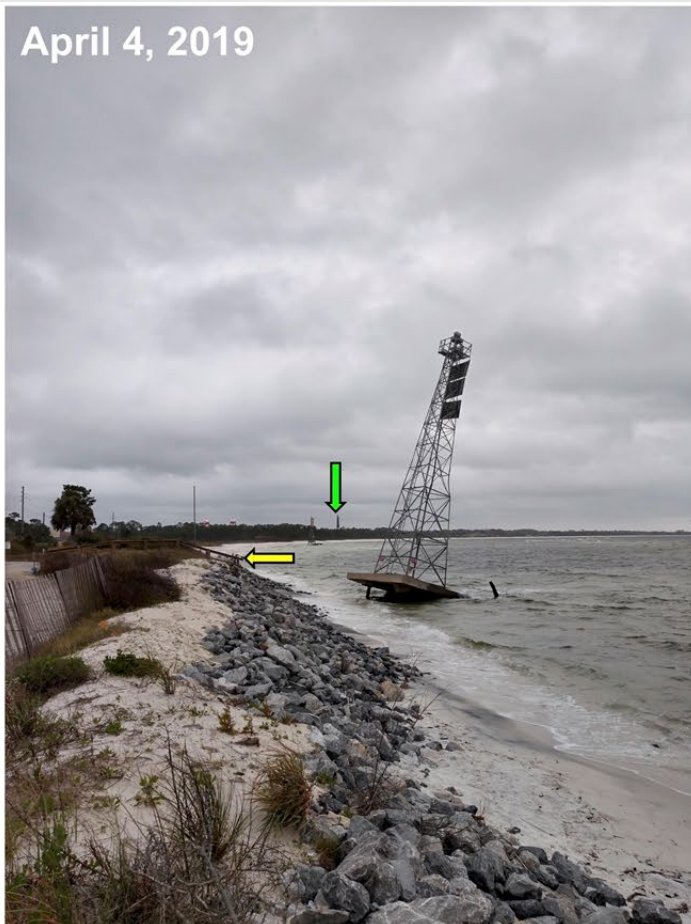




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What's Next

- a) Companion project – Magazine Point Living Shoreline Project
 - a) Expected to commence construction in fall 2022 (funding dependent)
 - b) Staff is working with NASP to identify future project opportunities
- b) Regional resilience initiatives
 - a) Pensacola & Perdido Bays Estuary Program
 - b) Northwest Florida Regional Resilience Cooperative

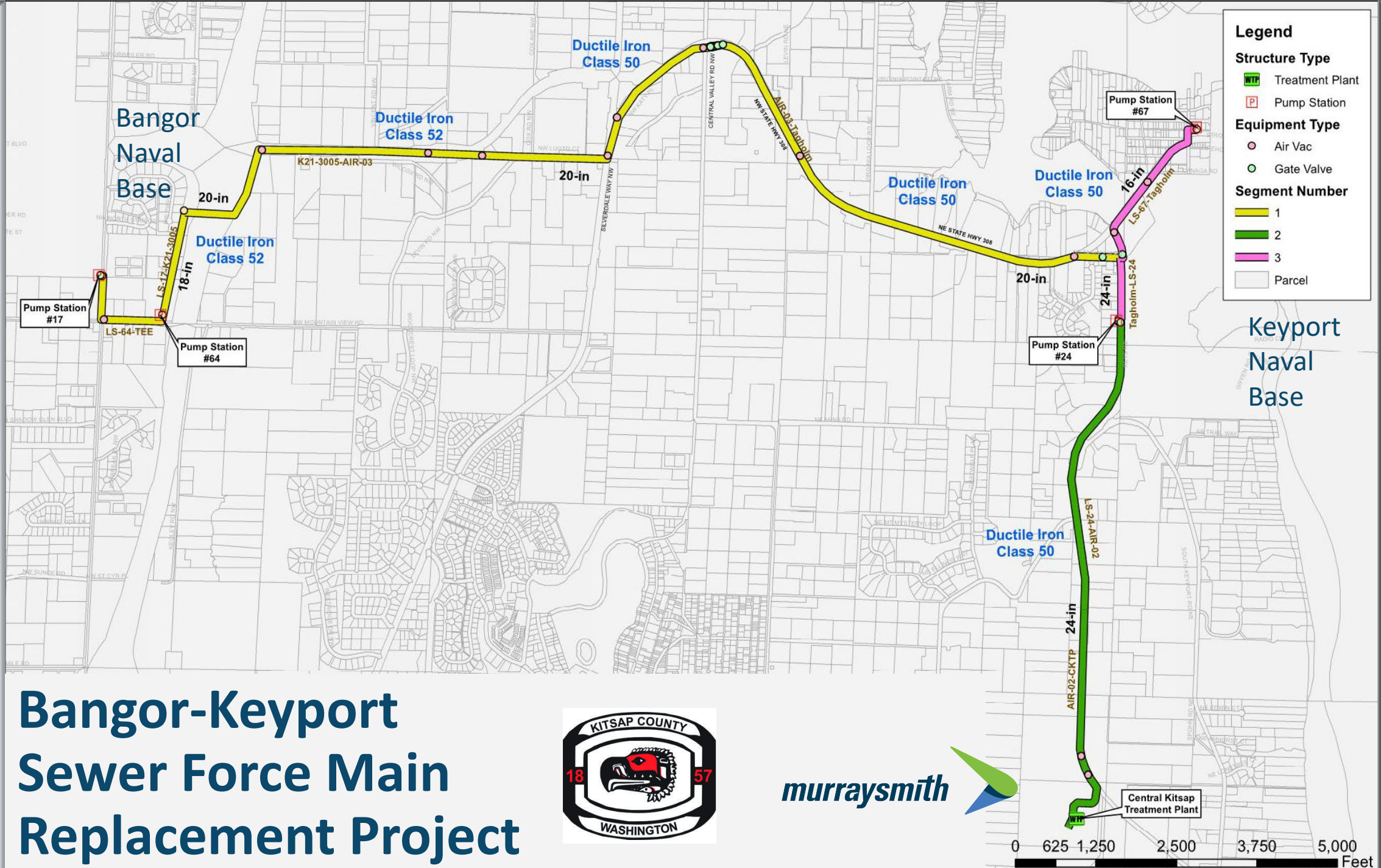




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Erika Schuyler

Murraysmith Principal Engineer, Kitsap County, WA



Bangor-Keyport Sewer Force Main Replacement Project





Project Summary: Project Process

The process identified the project as a “deficiency in community infrastructure, supportive of a military installation, in order to enhance military value, installation resilience, and military family quality of life”:

- Kitsap County engaged Murraysmith to investigate the existing pipe condition in 2018; physical and vapor phase testing was planned
- Failure found during first day of physical testing
- Kitsap County halted physical testing and decided to move immediately into final design
- An alternatives analysis was completed; replacement pipe alignment follows existing alignment






Project Identification

- Deficient community infrastructure due to sewage leaking into surrounding environment
- Supports Bangor and Keyport Naval Bases and military family quality of life by safely routing sewage to Central Kitsap Wastewater Treatment Plant
- Enhances military value and installation resilience by providing corrosion-resistant infrastructure with longevity



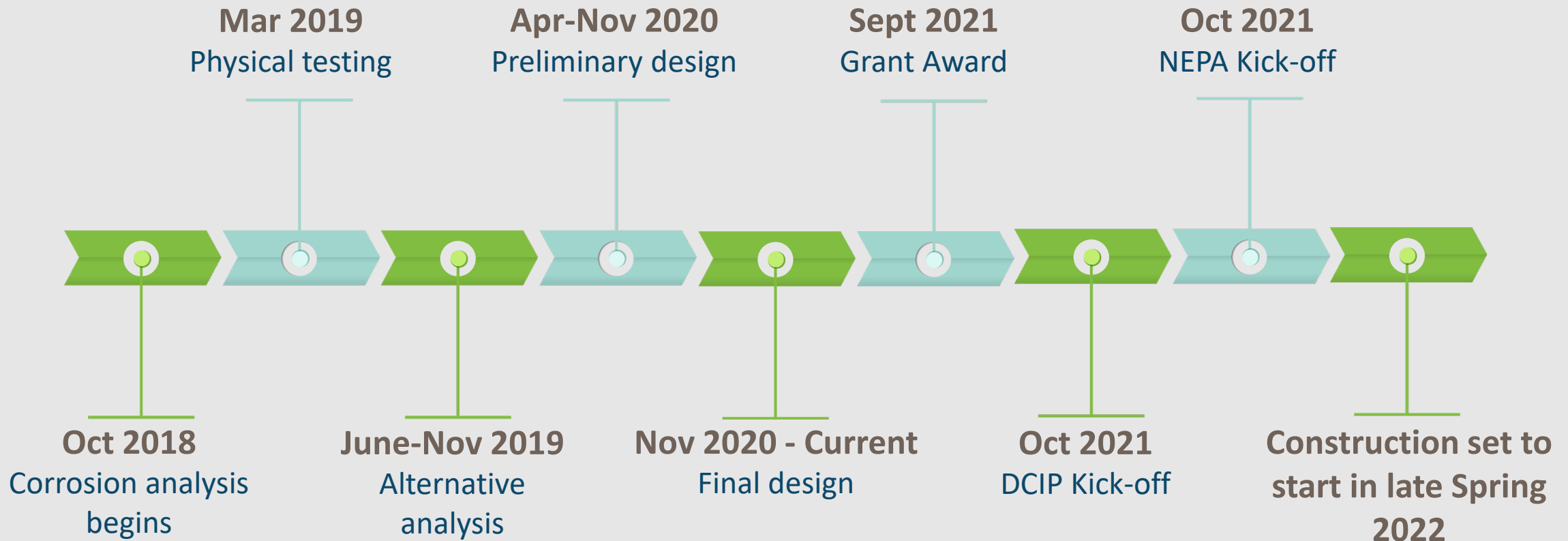
Project Summary: Project Process

-  **Engagement with local installation throughout the process:** Kitsap County has had and continues to have ongoing discussions with Bangor Naval Base personnel regarding the quantity and quality of the installation sewage and brainstorming solutions to address the corrosion problem identified in the existing sewer force main.
-  Kitsap County applied and was unsuccessful in receiving funding in 2020.
-  Kitsap County reapplied for funding in 2021 and was successful in part due to having a letter of support from the Bangor Naval Base Commander, as well as having the project ready to start construction within the required funding timeframe.

Project Summary: Project Schedule

Kitsap County reapplied for DCIP funding in 2021, as project had progressed to a “construction ready” submission

Project is on-track to break ground within 12 months of grant award



Project Summary:

Planning/Permitting/Environmental Compliance



Planning document to Washington State Department of Ecology (ECY) during conceptual design phase (2019)



Coordination with Washington State Department of Transportation (WSDOT), as much of the alignment is within WSDOT right-of-way



Coordination with State permitting agencies, including Washington State Department of Fish and Wildlife (WDFW) for Hydraulic Project Approval (HPA) at culvert crossings



Coordination with Kitsap County environmental permitting staff



Beginning the NEPA process currently, including Section 106 activities

What's Next: Furthering Collaboration with Local Installation



Local installation has been very responsive and supportive, including the letter of reference from the Base Commander ahead of the 2021 grant application



The County has not identified additional projects that may represent “deficiencies” yet, but those conversations will happen as the DCIP process continues with the current project

What's Next: How does this project contribute to efforts to build a resilient community?



Emergency Repair - Dec 2020 - Present

This project replaces the failing infrastructure with better, more resilient infrastructure, which:



Addresses public health risks



Furthers resiliency within the community



Strengthens the relationship between the local installation and Kitsap County

What's Next?



Emergency Repair - Dec 2020 - Present



Complete Design



Finish Permitting



Bid the Project



Begin Construction by late spring 2022



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Janet Nichols

Military Community Liaison, Manhattan, KS



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Project Summary: Manhattan, KS Regional Airport Runway Expansion Project

- a) Airport runway construction
- b) FAA Airport Improvement Project (AIP): all airports are required to file a Master Plan every 10 years with a 20-year outlook. Our planning process for this project began in 2018.
 - i. Plans, Analysis, and Integration Office (PAIO)
- c) Timeline estimates: All FAA construction & grant agreements likely executed in August of 2022

Design Completion: 3/31/22

Bid Advertised: 3/25/22

Bid Opening: 4/29/22

Construction Staging Start Date: 9/26/22

Construction Groundbreaking: 3/31/23

Construction Completion: 9/30/21

- i. Because the FAA AIP Master Plan process began in 2018, the bulk of the DCIP requirements had already been completed.



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What's Next

- a) Manhattan has a strong and vibrant relationship with Fort Riley, which this process only strengthened. The Flint Hills Regional Council (FHRC), who coordinates our DCIP efforts, has a few projects that may potentially fit the DCIP requirements and will coordinate with Fort Riley to make sure these projects are beneficial to readiness, resiliency, and quality of life for soldiers and their families.
- b) The long-term viability of Manhattan Regional Airport supports not only Fort Riley and Kansas State University (one of our region's other large economic drivers) but the economic growth of the entire region. While commercial air service was ensured at the 100-foot width, our FFA AIP Master Plan's 20-year outlook indicates sufficient growth of Manhattan and the region for the 150 feet required to accommodate military C-130 and C-17 aircraft and other large commercial category III aircraft.



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Don Mills

Deputy Director for Public Works & Transportation, St. Mary's County, MD

Project Summary

- a) The St. Mary's County's (SMC) project is road construction consisting of sidewalks and crosswalks installations.
- b) The County works on a joint effort with the neighboring counties as a Metropolitan Planning Organization (MPO) and with NASPAX to identify deficiencies in community infrastructure.
 - i. This project was collaboration of the efforts between NASPAX and SMC Government. SMC Department of Economic Development (DED), Land Use & Growth Management (LUGM), Recreation & Parks (R&P) and Public Works & Transportation (DPW&T). Connecting with liaisons of NASPAX was paramount in hatching the project concept.

Continued

- c) It is expected that the design plan will start in November 2021 and we intend to obtain permits for the sidewalk construction between Gate 1 & 2 by June 2022. We will be breaking ground before September 2022 for the sidewalk construction and the crosswalk installation will follow soon after but is planned to be permitted under a separate SHA Permit.
 - i. We do not anticipate any adverse impacts to environmental and natural resources but, DPW&T will request confirmation from the appropriate authorities. DPW&T will be leading this project through the construction build-out.

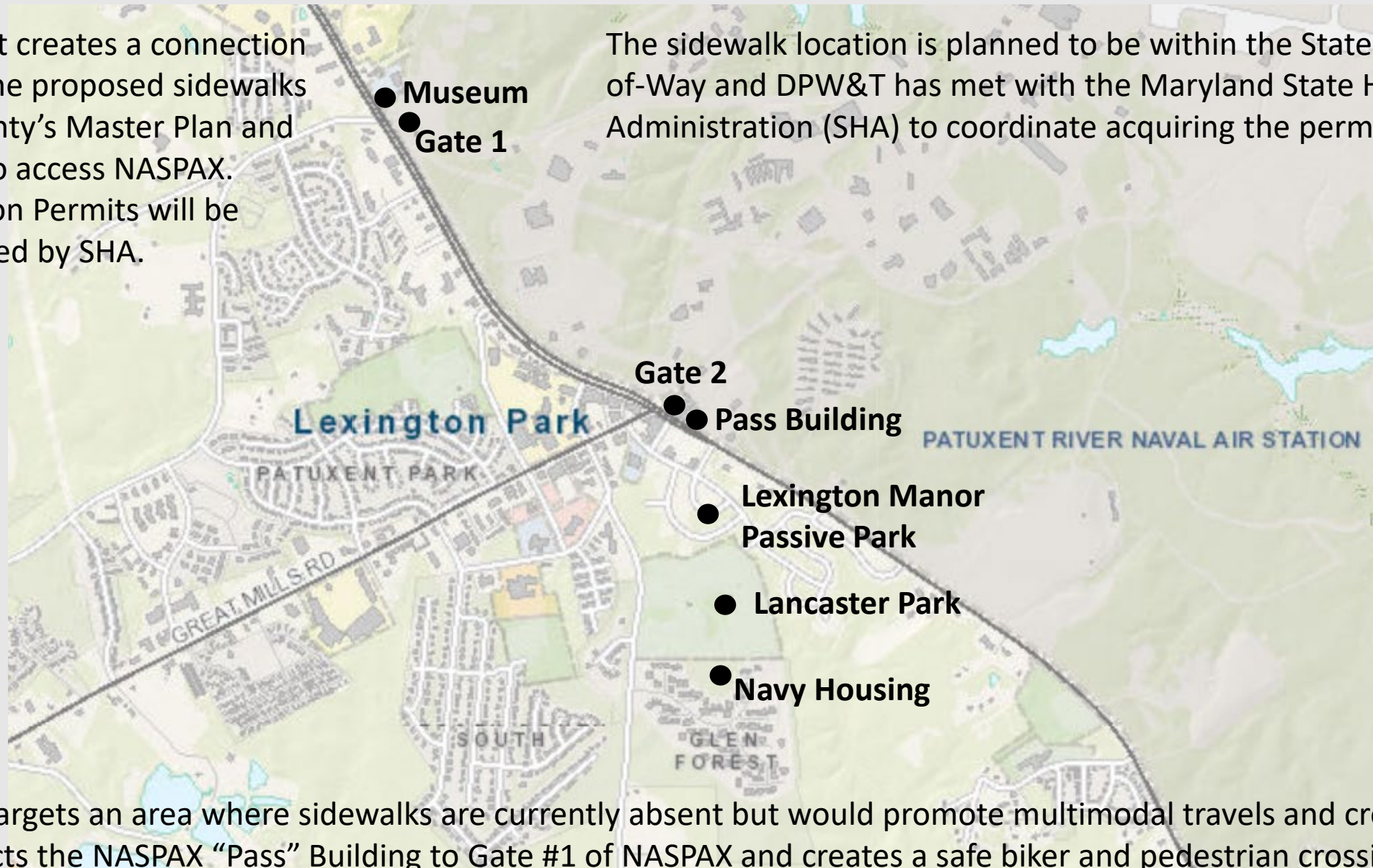
What's Next

- a) SMC Government and NASPAX has a strong bond and together they are always seeking ways to improve the municipality to achieve a sustainable and resilient community. We are expecting that additional projects will be creating pedestrian paths connecting the PAX Air Museum, the County's Transit Hub, the Lexington Manor Passive Park, Lancaster Park, and the Glenn Forest Housing Area (Navy housing, on US Government Property).
- b) With the completion of this project, more people will be able to utilize multimodal means of the transportation which lends to the ability to prepare for and adapt to changing conditions in the community.

Overview (NASPAX, Museum, & Navy Housing)

This project creates a connection between the proposed sidewalks of the County's Master Plan and the need to access NASPAX. Construction Permits will be administered by SHA.

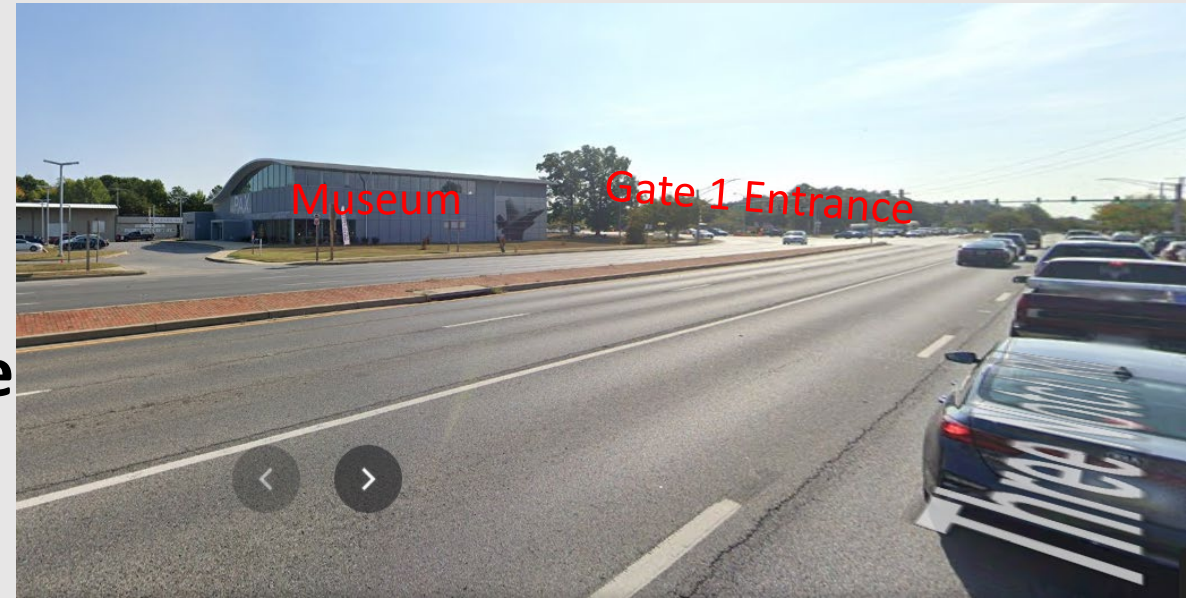
The sidewalk location is planned to be within the State Road Right-of-Way and DPW&T has met with the Maryland State Highway Administration (SHA) to coordinate acquiring the permit from them.



This project targets an area where sidewalks are currently absent but would promote multimodal travels and creates a path which connects the NASPAX "Pass" Building to Gate #1 of NASPAX and creates a safe biker and pedestrian crossing near Gate #2.

NASPAX Gate 1 and PAX Air Museum

Currently, all traffic to and from the Base must travel on or across MD 235.



NASPAX Gate 2 and Pass Building (Frank Knox)



St. Mary's County Planning

- SMC has adopted several planning plans that we call the Lexington Park Sustainable Community Plan, SMC Comprehensive Plan, and the Lexington Park Master Plan as well as comprehensive studies such as the Naval Base Commuter Multimodal Mobility Planning Study.
- SMC is also updating its transportation plan and developing ways to encourage multimodal travel specifically in the Development District.

Excerpt from the Naval Base Commuter Multimodal Mobility Planning Study



Pedestrian Connectivity Recommendations

3.1 & 3.2: General Infrastructure Improvements

- Form an interconnected pedestrian network by the installation of appropriate sidewalk facilities between major employment centers
- Primary focus should be on areas that access the most frequented buildings
- Pedestrian crossings and signals should be added to all appropriate intersections (ex. Cedar Point Rd/Buse Rd and Cedar Point Rd/Tate Rd)
- Crossings also added at appropriate and comfortable intervals throughout base

Timeframe: Medium to Long Term (5+ Years)
Key Agencies: NAS/PAX

Estimated Cost: Varies

Excerpt from the Naval Base Commuter Multimodal Mobility Planning Study



Pedestrian Connectivity Recommendations

3.3: Implement a Pedestrian Crossing of MD 235

- Southern-most side of intersection is most appropriate as it avoids conflict between the high-volume free flow right from the base to MD 235 and reduces the overall number of conflicts between vehicles and pedestrians
- Pedestrian activated signal only
- Influences connection to the Tulagi Place Park and Ride



Location of new proposed crosswalk in proximity to Tulagi Place Park and Ride. Source: JMT

Timeframe: Medium Term (5-10 Years)

Estimated Cost: \$200,000 - \$250,000

Key Agencies: MDOT SHA, St. Mary's County

Excerpt from the Lexington Park Sustainable Communities Action Plan

Sustainable Communities Renewal Application - Section B

Desired Outcomes and Progress Measures →	Strategies and Action Items →	Implementation Partners
Outcome 1: Address gaps and provide multimodal network improvements Progress Measures: <ul style="list-style-type: none"> Enhance bike and pedestrian connections between neighborhoods and employment centers <ul style="list-style-type: none"> Provide bike and transit access to PNAS Pedestrian improvement crossing MD 235 Address turning movement for accessing PNAS museum Sidewalks 1st section of Shangri La Complete road improvements to enhance safety and access <ul style="list-style-type: none"> Rogers Drive extension Willows Road sidewalks tied to Lancaster Park, restriping road for bike lane FDR Blvd. project extends Three Notch Trail to Pegg Road by end 2022 Great Mills/ Indian Bridge intersection improvements 	A. Adopt and implement a formal Complete Streets policy (DPWT/HSMP co-sponsor request) B. Hire Bicycle and Pedestrian Coordinator w/expanded role for streetscape planning/safety training C. Implement currently identified CIP projects. D. Implement programs changes identified by ongoing planning efforts (MPO study, Transportation Plan Update, Transit plan Update) E. Include new projects in the CIP	DPWT HSMP CSMC SMCDC DR&P SHA/MDOT SMCHD
Outcome 2: Streetscape improvements and amenities Progress Measures: <ul style="list-style-type: none"> Provide Streetscape pedestrian improvements for: <ul style="list-style-type: none"> "Downtown" for the Gateway "Central Business District" Great Mills Corridor 	A. Hire Bicycle and Pedestrian Coordinator w/expanded role for streetscape planning/safety training B. Implement currently identified CIP projects. C. Request corridor/streetscape façade improvement plans and CIP funds for implementation D. Support SMCDC efforts to obtain operating and implementation funds to assist private businesses and landowners. E. Incentivize private investment by assisting property owners with grants and low interest loans	DPWT SMCDC Property owners DED SMCHD

Excerpt from the St. Mary's County 2010 Comprehensive Plan

- [Regarding analysis of how past plans have addressed Maryland's 12 Planning Visions]
-
- Vision 5. Conservation of resources, including a reduction in resource consumption, is practiced.
- ...
- I. The [2005] Lexington Park Master Plan and the 2006 Transportation Plan call for an expanded network of sidewalks and bicycle trails to accommodate alternatives to automobile use. [NOTE This recommendation was carried forward in the 2016 Lexington Park Plan]
-
- Vision 7. Adequate public facilities and infrastructure are available or planned in areas.
-
- E. The transportation system must remain a priority, including maintenance and enhancement of the road network to assure an acceptable level of service throughout. There is a need to achieve peak period capacities at acceptable levels along all arterials through the careful application of access management and the development of a separate supporting network for local traffic. In areas of existing or anticipated congestion, a circulation system must be maintained that encourages the separation of through and local traffic. This needs to be done while planning for adequate capacity to serve new development in planned growth areas. Planned improvements to the transportation network must correspond with and support the overall land use plan. Focusing development in growth areas can
 - help manage the spread of traffic congestion and support alternate modes of transportation. In support of a better circulation system, land use and transportation policies and capital investment strategies need to be directed at reducing the number of individual vehicle trips. This can be accomplished by implementing transportation demand reduction policies such as the 4-day work week and telecommuting as well as increasing the use of public and alternative transportation. The alternative transportation component needs to include a bicycle and pedestrian network that provides safe and functional connections between residential, employment, recreational, shopping and transit centers. In keeping with the land use plan to discourage development in rural areas, there is a
 - need to limit transportation improvements outside of growth areas to essential capacity improvements as well as the upgrading of substandard roads and bridges. **There is a need to implement traffic calming strategies and engineered retrofit projects to reduce vehicular speed and enhance the safety of pedestrians, bicyclists,** and those relying on horse-driven transportation. Identified transportation corridors need to be reserved, dedicated and/or mapped in accordance with Article 66B in order to ensure safety and the availability of rights-of-way for the planned transportation network.
-
- **4.1 GROWTH AREAS CONCEPT**
- The Plan seeks to concentrate future residential and commercial development in the development districts, town centers and village centers. Over time, these centers will become significantly denser than they are today. Dense communities must be especially well designed in order to remain attractive and functional for the people who live and work there. The County will encourage design excellence in its growth areas, including attractive architecture, mixed use development, public open space, **good connectivity, pedestrian and bicycle amenities,** and green features that soften and humanize the built environment.
-
- **4.1.3 Goal:** Apply excellent community design principles to the built environment, especially in the development districts, town centers and village centers.
 - C. Objective: Ensure pedestrian and bicycle-friendly environments.
 - **i. Policy: Require adequate sidewalks and well-marked crosswalks.**
-
- **4.5 DEVELOPMENT GUIDELINES**
- **4.5.1 Growth Area Land Use Concepts**
 - C. Mixed Use Areas
 - **iii. Downtown Mixed Use: Within the core area surrounding Gate 2 of the Naval Air Station and southwesterly along either side of Great Mills Road, development shall be consistent with the mixed-use character of the area. Standards are intended to create an urban character and to make the core area safe, pedestrian friendly and visually attractive.**
- ...
- **4.5.4 Lexington Park Planning and Design Recommendations**
- The Lexington Park Development District (LPDD) Master Plan is incorporated by reference into this Comprehensive Plan. ...

Excerpt from the St. Mary's County 2016 Lexington Park Master Plan

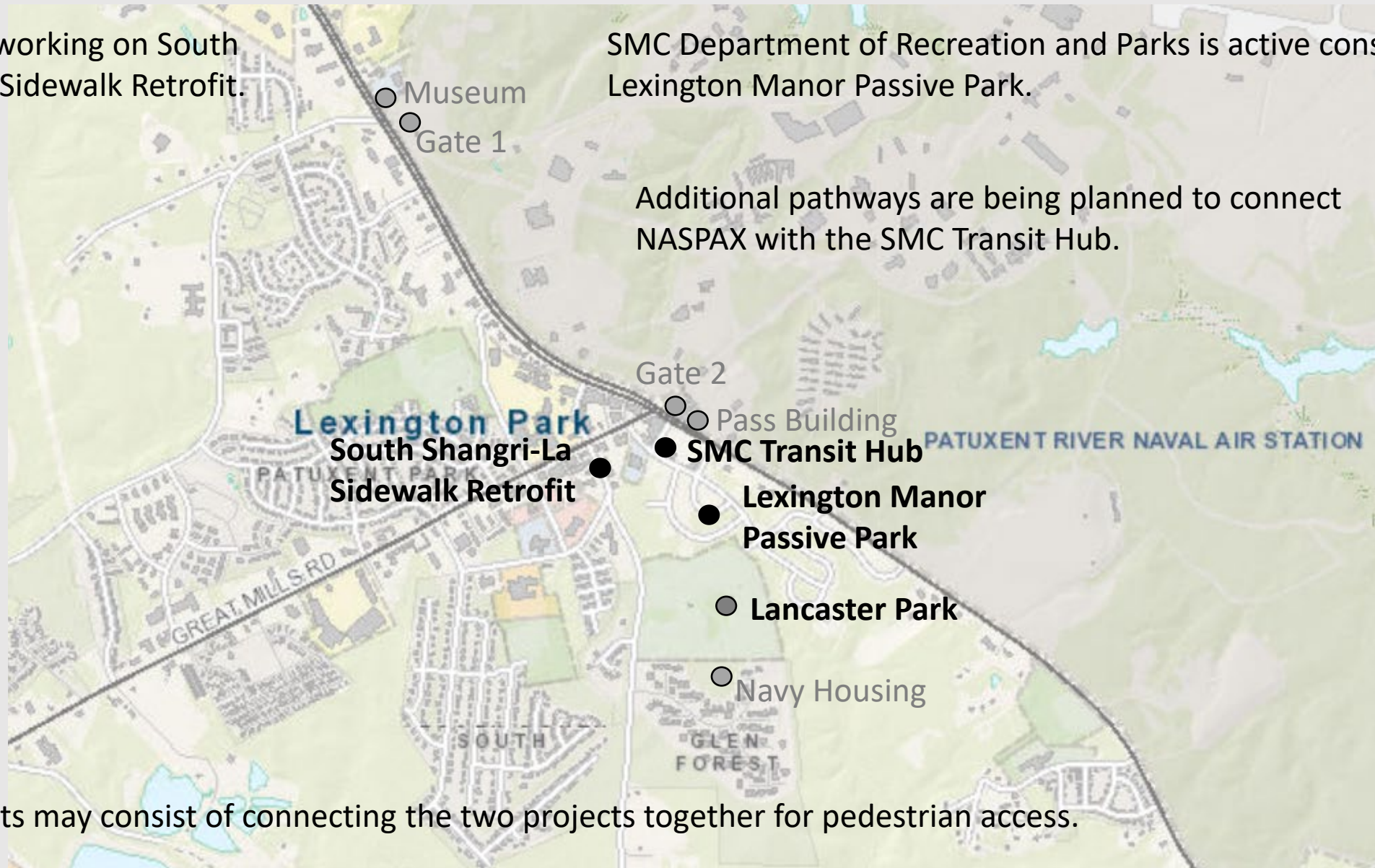
- **1.2.7 Naval Air Station, Patuxent River (NAS)** The NAS is the Navy's principal location for research, development, testing, evaluation, engineering and fleet support for naval aircraft, engines, avionics, aircraft support systems and ship/shore/air operations. The complex employs more than 22,000 people, including active-duty service members, civil service employees, and defense contractor employees. Even though the county has no jurisdiction over the NAS for master planning, zoning, or budgeting for capital facilities, county government does maintain a planning objective to strengthen visual and physical connections between the NAS and Lexington Park.
- **1.3.1 Recommended Targeting Strategy** To support redevelopment in aging areas of the Development District, this Master Plan calls for targeting programs, plans and policies to areas of greatest need, and targets the Central Subarea (described below) for infill and redevelopment. This targeting is intended to achieve a cohesive pattern of neighborhoods and shopping and employment centers enhanced by a network of open spaces and served by adequate facilities. The Central Subarea is preferred for public funding for infrastructure. ...[T]hree of the four focus areas detailed in this Plan are entirely within the Central Subarea; the fourth focus area extends along FDR Boulevard from the Central into the Northern Subarea. The Downtown and Great Mills Road Corridor focus areas provide the gateway to the NAS.
- **4.2.2 Complete Streets and traffic calming should be applied to all public transportation projects within the LPDD** such as, but not limited to, new road construction, reconstruction, retrofits, upgrades, resurfacing and rehabilitation. This policy also covers privately built roads intended for public use.
 - A. New and infill development and redevelopment should provide a street network designed and operated to enable safe, attractive, and comfortable access and travel for pedestrians, bicyclists, motorists and public transport.
 - B. Existing roads should be considered for modifications to incorporate Complete Streets concepts and traffic calming in order to expand the sidewalk and bikeway networks even when there are no planned improvements to automobile travel lanes.
- ...
- **4.2.3** The following provides criteria for including Complete Street into site designs and identifies types of traffic calming devices that should be considered.
 - A. Site designs should accommodate the existing and planned transportation network (planned road connections, public transit routes, bike lanes, hiker/biker trails, greenways, etc.) including conserving the rights-of-way for potential rapid transit routes along primary corridors.
 - B. Street designs should provide well defined and separate travel paths for vehicles, bikes, and pedestrians; accommodate bus stops.
 - C. Provide a safe and inviting pedestrian landscape by occupying the area between streets and buildings and between the buildings and parking lots with street trees, pedestrian amenities, sidewalks, and landscaping.
 - D. Provide visually and texturally distinct crosswalk surfaces where pedestrian/bike paths and sidewalks must cross streets.
 - E. Integrate stormwater management into the streetscape as a means to minimize flooding of the transportation infrastructure and to protect and improve water quality.
 - F. Provide sidewalks and pedestrian/bike paths extended to the edges of the property in a manner that allows each new project to seamlessly connect to existing walks and paths on adjacent sites.
 - G. Specifically provide continuous walkway/crosswalk connections (with particular attention to handicapped accessibility) between uses within commercial and mixed-use developments and between non-residential development and adjacent residential developments.
 - H. Where pedestrian connections are currently missing, provide infill sidewalks and crosswalks when public roads are repaved or widened.
 - I. Use traffic calming measures such as pavement width reduction to slow traffic and increase crossing safety, traffic circles at primary cross streets, crosswalks and canopy trees along streets.
- **8.3.2** Increase opportunities for regular physical activity
- ...
 - E. Prioritize development of a network of bikeways and bicycle facilities safely connecting cyclists from housing to transit stops, worksites, schools, recreational areas, and key community destinations.
- **10.7.3** Potential incentives, tools and minimum regulations identified in the LPDD Plan.
- ...
 - C. Examples of incentives and regulations to serve transit, biking and pedestrian travelers include:
 - Based on floor area and distance to existing services, dedicate land for and install an approved bus stop.
 - Provide a bicycle rack if there is none within 100 feet of an approved bus stop
 - Provide marked pedestrian crosswalks across new and existing public roads and connections to existing sidewalks and hiking and biking trails.

SMC Projects in Process or Planning

DPW&T is working on South Shangri-La Sidewalk Retrofit.

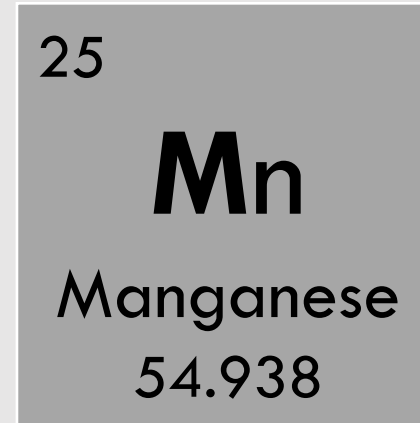
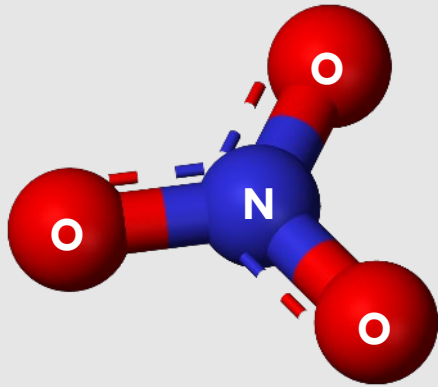
SMC Department of Recreation and Parks is active constructing the Lexington Manor Passive Park.

Additional pathways are being planned to connect NASPAX with the SMC Transit Hub.



Future projects may consist of connecting the two projects together for pedestrian access.

Iron and Manganese Treatment Project



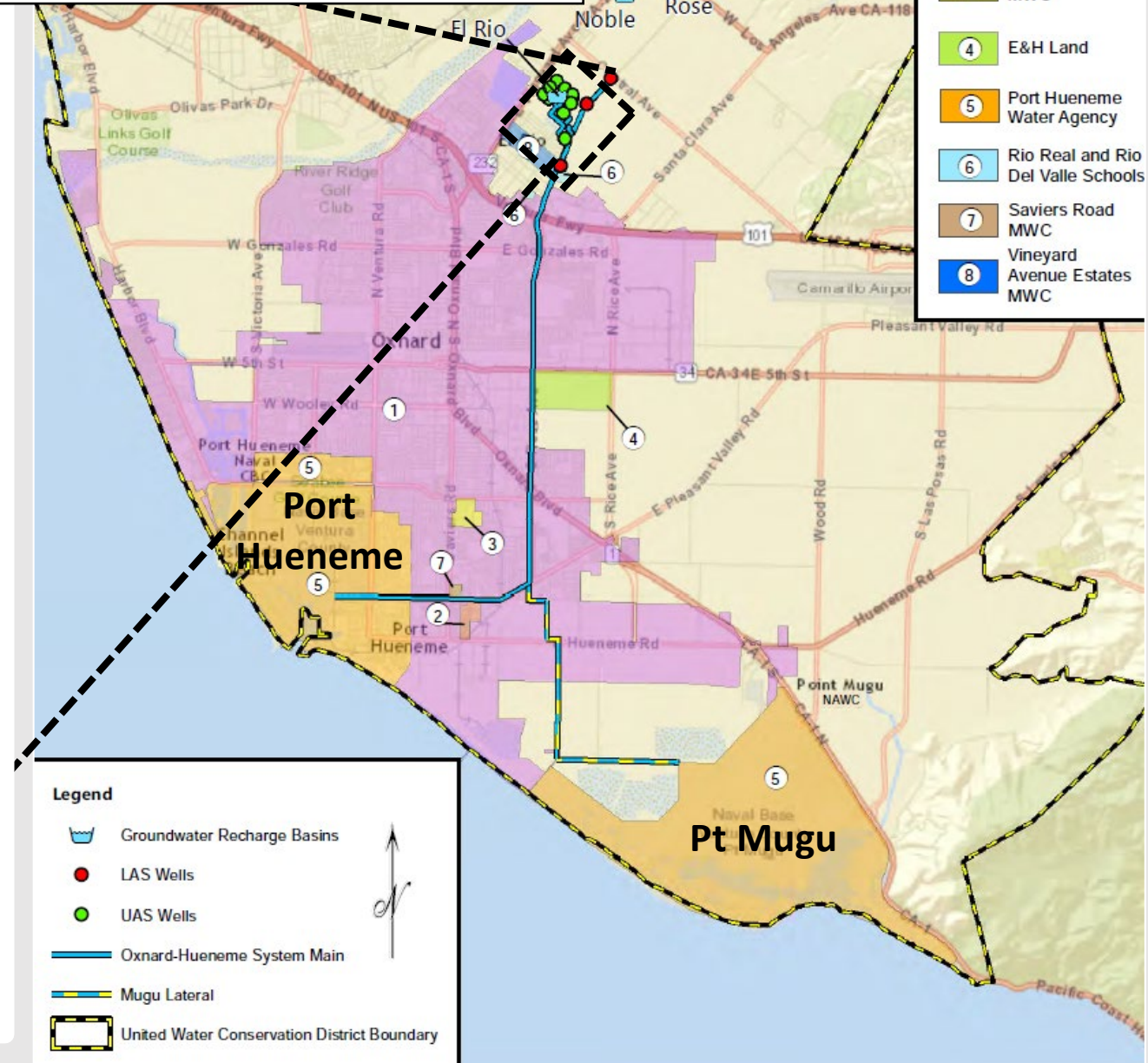
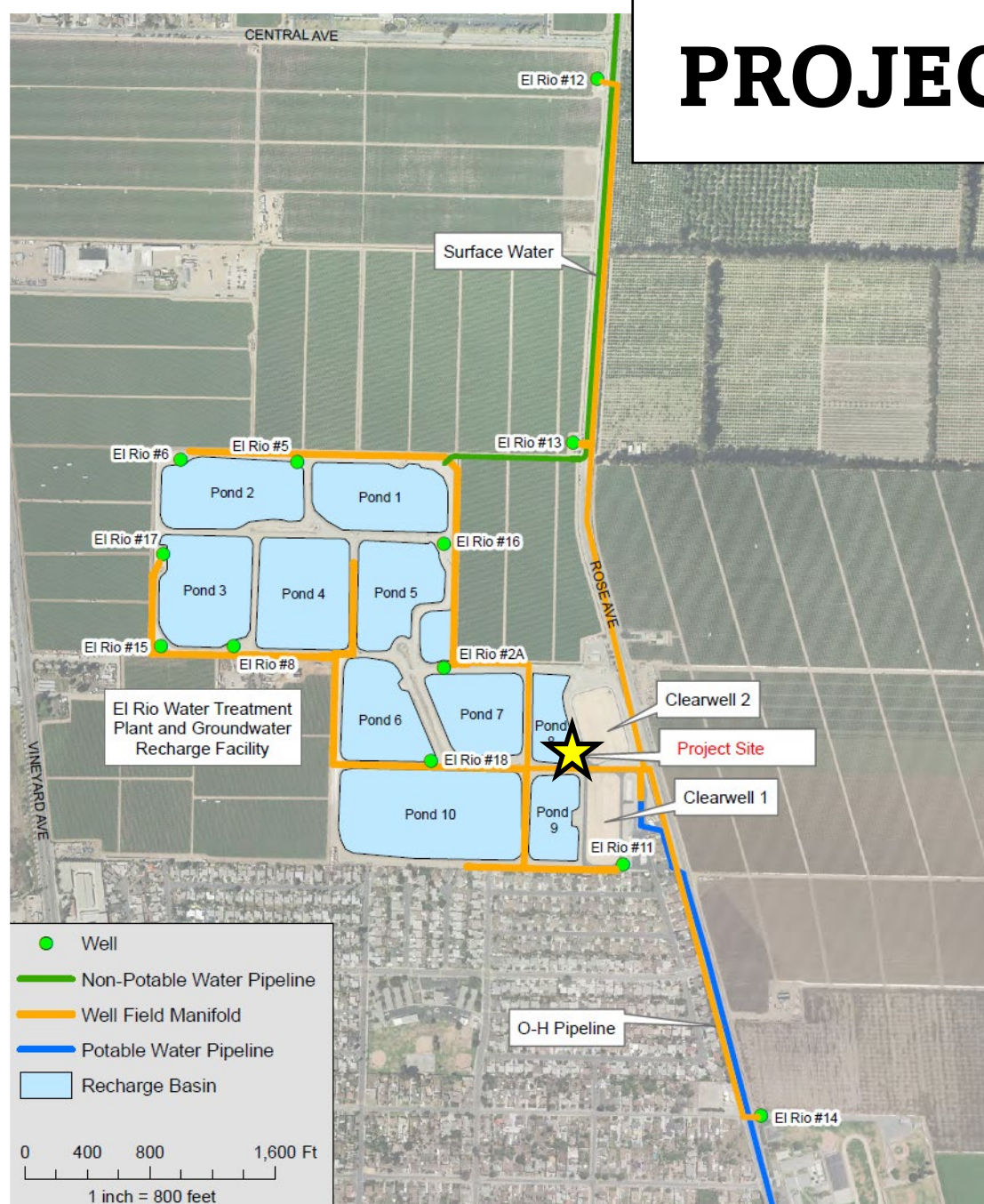
2021 Infrastructure Innovative Forum

November 1-3, 2021

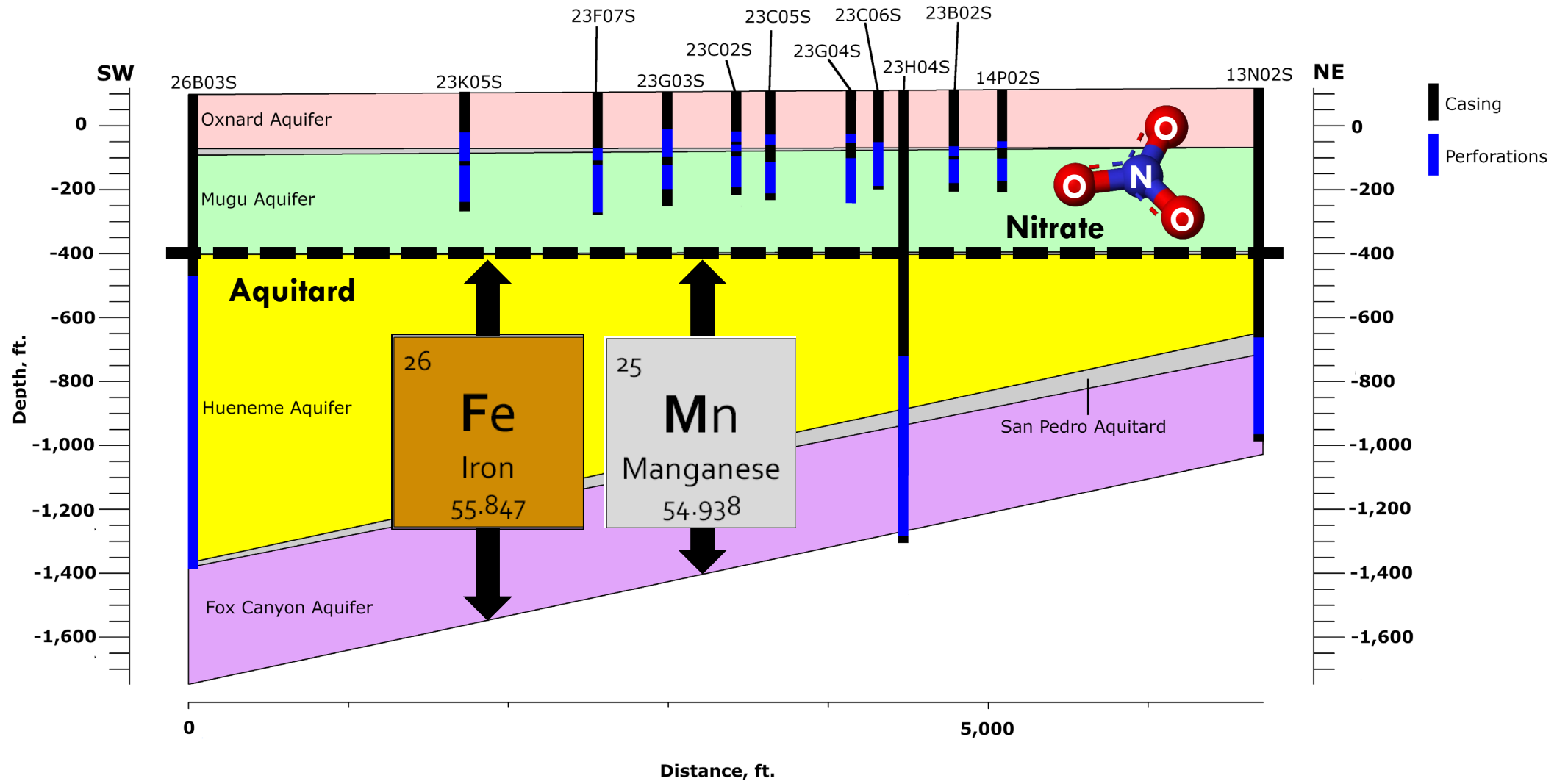
San Antonio, TX



PROJECT LOCATION



WATER QUALITY ISSUES



PROJECT OBJECTIVES and DEVELOPMENT

Objectives

- ☐ Drought Resilience
- ☐ Drinking Water Quality Standards Compliance
- ☐ Water Quality Improvement

Facility Design

- ☐ Fe/ Mn Removal from 3 LAS Wells at El Rio
- ☐ Treatment Capacity (Phase I): up to 3500 gpm or 5,646 AFY
- ☐ Provisions for Future Expansion (Phase II): up to 8500 gpm or 13,709 AFY
- ☐ Nitrate control by blending groundwater from UAS with LAS

Project Activities

- ☐ Feasibility Study, incl 1st Pilot Testing Completed in August 2016
- ☐ Design Contract Award to Kennedy Jenks in July 2018
- ☐ PS&E Finalized in January 2021
- ☐ Construction Contract Awarded in August 2021

Grant Funding

- ☐ State Grant Award supporting Project Construction for \$2.5 million
- ☐ OLDCC DCIP Grant Award supporting Construction for \$4.23 million
- ☐ Project Total Cost: \$12.8 million

PROJECT SCHEDULE

Aug 26 – Dec 2021	Submittal process ongoing
Aug 25, 2021	Preconstruction meeting
Aug 26, 2021	Execution of \$9.34 million construction contract
Aug 30, 2021	Issued work directive change No. 1 to contractor (Buy American Act)
Sept 20, 2021	Issued Administrative Notice to Proceed to Contractor
Sept 24, 2021	Cosigned DCIP grant agreement for \$4.21 million with OLDCC
Sept 29, 2021	Earthwork preconstruction meeting
Oct 21, 2021	OLDCC kick off meeting
Nov 22, 2021	NEPA processing complete OLDCC to issue a notice to proceed to United
Nov 29, 2021	Contractor to mobilize to the site
Dec 31, 2022	Complete Construction