3.1 Infrastructure Capacity Analysis and Planning-Level Implications

This Infrastructure Capacity and Recommendations Memo documents existing infrastructure conditions within designated Priority Production Areas (PPAs) in the Contra Costa County Northern Waterfront Economic Development (NWED) area and provides a planning-level assessment of infrastructure capacity, constraints, and upgrade considerations. The memo builds on mapping and inventory work completed under earlier project tasks and refines that information with a focus on infrastructure ownership, system capabilities, and service limitations relevant to industrial and employment-supporting land uses.

The PPAs include:

1. Pacheco Manufacturing Zone. This 4,700-acre PPA in unincorporated Contra Costa County is largest PPA in the NWED. It is located northeast of the intersection of Interstate 680 (I-680) and State Route 4 (SR 4), north of the City of Concord and east of the City of Martinez. It includes an eastward "extension" along Contra Costa Canal that forms an approximately 100-acre bulb of land. The PPA is bisected by the Burlington Northern and Santa Fe (BNSF) and Union Pacific (UP) railways and includes the Buchanan Field regional airport.
2. Northern Concord PPA. This 495-acre PPA includes two discontinuous areas in the City of Concord, both that share borders with the Pacheco Manufacturing Zone PPA. One area is located immediately north of SR 4 and the other is immediately south of SR 4.
3. Western Concord PPA. This relatively small PPA includes two discontinuous areas in the City of Concord that total about 112 acres. The larger area is located south of Monument Boulevard immediately west of the BART right-of-way. The smaller area is immediately east of the BART right-of-way.
4. Baypoint Industrial Sector. This 188-acre PPA is in unincorporated Contra Costa, within the City of Pittsburg Sphere of Influence (SOI). It is about 0.5 miles north of SR 4 and 7.5 miles east of I-680, directly south of the BNSF and UP railways.
5. Northern Waterfront. This 1,243-acre PPA is in northeastern Pittsburg, north of SR 4 and east of Downtown Pittsburg. The BNSF railway runs through the northern part of the PPA, and the UP railway runs through the southern part.
6. Northern Waterfront Industrial Corridor. Most of this 1,027-acre PPA is in the north/northeastern areas of the City of Antioch. The far northeastern corner of the PPA is in unincorporated Contra Costa but within Antioch's SOI. The PPA is about a mile north of SR 4 and a half-mile north of the UP railway.
7. Oakley Employment Area. This 758-acre PPA is in the northwest corner of the City of Oakley. It is immediately adjacent to the Northern Waterfront Industrial Corridor, just over a half mile north of SR 4. The BNSF railway bisects the middle of the PPA.

INFRASTRUCTURE CAPACITY ANALYSIS AND PLANNING-LEVEL IMPLICATIONS

The analysis evaluates:

- Access roads and internal circulation
- storm drainage facilities
- potable water supply and distribution systems
- sanitary sewer collection and conveyance
- electrical power, and
- communications infrastructure.

Information was compiled from adopted planning documents, utility provider reports, publicly available infrastructure data, and coordination with the following agencies and service providers:

Agency/Service Provider	Contact Name	Department
PG&E	Nic Souza	Service and Planning
PG&E	Madeline Silva	Economic Development, Commercial Growth Organization
PG&E	Tom Fenton	Economic Development, Commercial Growth Organization
Contra Costa Water District	Nicola McCluney	Public Affairs / Main Office
Delta Diablo	Cecelia Nichols-Fritzler	Office Manager
City of Pittsburg Water	Jorge Esparza	Wet Utilities Superintendent
City of Pittsburg Power	Vanessa Xie	Power Engineer
Iron House Sanitary District's	Danea Gimmel	District Engineer
Diablo Water District's	Dan Muelrath	General Manager
Central San	Barbara Hockett	District Board Member
Goldenstate Water	Scott McGourty	Wet Utilities Superintendent
City of Antioch	Shaun Connelly	Public Works Director

The assessment identifies what infrastructure systems currently support, where service gaps, inefficiencies, or shortfalls exist, and under what conditions expansions or upgrades may be required.

Infrastructure systems are generally planned and operated to support historic and anticipated growth patterns reflected in adopted General Plans and utility planning documents. Infrastructure providers do not plan for surplus capacity for unidentified future users. As a result, development proposals that align with baseline planning assumptions are generally expected to be accommodated within existing service frameworks, while proposals that exceed those assumptions require project-specific evaluation, coordination with service providers, and, where necessary, targeted infrastructure investment. Because no specific development proposal or end user has been identified, this memo does not assume tenant types, development intensities, or demand profiles.

Infrastructure capacity is evaluated at a planning level and reflects the ability of systems to serve existing development patterns and forecasted growth under adopted plans, rather than detailed engineering analysis or project-specific capacity confirmation. Determination of whether a proposed use fits within existing service capacity or requires additional improvements is appropriately addressed at the project level when specific details about demand are known.

This memo establishes a factual baseline to inform subsequent phases of the project. Findings are not presented as development recommendations, but as groundwork to support future tools, coordination with infrastructure providers, and a more detailed evaluation of development readiness and infrastructure investment needs.

THE SIGNIFICANCE OF ELECTRICAL POWER

The infrastructure-related policy implications identified in this analysis are diverse in systems and significance. However, input from Pacific Gas & Electric (PG&E), industrial real-estate experts and local leaders indicates that capacity, access, and provision of adequate electrical power at and to industrial sites is the primary infrastructure barrier to economic activation of NWED PPAs.

"LARGE LOAD" USERS

Many modern industrial uses, including manufacturing facilities, green manufacturing plants and data centers, are categorized by PG&E as "large load" users that consume 20 megawatts (MW) of electricity or more per month, enough to power over 16,000 homes. Most industrial sites across the PPAs are not served by power at these capacities. As a result, the current industrial market is increasingly driven by access to large, affordable electrical power loads.

PG&E owns and operates the regional transmission and distribution infrastructure serving central Contra Costa County and provides electrical service across the PPAs. Nearly all electrical infrastructure serving the PPAs has been developed incrementally over time, to support existing uses and demonstrated demand, rather than preserved for the required capacities of future development and local growth plans. According to PG&E staff, PG&E's current grid operates at roughly 40 to 45 percent of capacity, on average. However, publicly available planning and reliability documents do not identify surplus or unallocated capacity intended to accommodate new industrial development without further evaluation.

THE CHALLENGE OF PROCUREMENT

Upgrading the power capacity of industrial sites to "large load" levels could trigger significant localized upgrades to distribution or substation facilities, depending on site-specific conditions. As a result, procuring such power loads from PG&E and upgrading sites to these capacities is a complex and lengthy process.

All energy capacity upgrades are conditioned on PG&E's project-specific service request and interconnection review process. This process considers local feeder conditions, substation loading, and system reliability criteria at the time an application is made.

Planning for "large load" power upgrades requires extended lead times and early coordination with PG&E's Economic Development team. These upgrades are categorized by PG&E as "transmission level interconnections" that require multiple technical analyses through PG&E's specialized "large load tariff" pricing and contract structure. These studies, which can take up to 9 months, determine connection timelines based on local jurisdiction policies, current capacity analysis, long lead material ordering and regulatory tariffs and proceedings. The potential for power connectivity of each project is also systematically studied based on factors such as the location of other utilities, land rights and existing easements, local jurisdiction policies, permitting, and PG&E's extensive Electric and Gas Service Requirements manual.

If new demand is significant enough to require a network upgrade, PG&E must get permission from the California Public Utilities Commission (CPUC) to expand network capacity, and the request must be substantiated with applications for new service PG&E has received. This process happens once per year.

MARKET BOTTLENECK

Accelerating the PG&E power procurement process is difficult. It requires applicants to submit all necessary right-of-way agreements and to prepare shovel-ready powerline route permits. This process is challenging for applicants due to lack of clear roles among PG&E and local jurisdictions, insufficient dedicated staffing, and lack of enforceable performance measures that could be used to make more efficient service determinations. The process has been described as a major bottleneck to industrial development by real estate experts, as developers are hesitant to build or lease new manufacturing facilities without guarantees of power capacity. At the same time, PG&E requires user and facility details in order to evaluate potential capacity upgrades, and must submit those details to the CPUC for review and approval of network upgrades. Ultimately, the procurement process can take 2 years or longer, potentially stifling development or preventing applicants from selecting PPA sites that do not already have the required power capacity in place.

In other cases, applicants may seek to avoid these challenges by providing their own on-site sources of energy, including extensive solar panel installation, undersea cable connections, fuel cells, generators, and batteries.

NEW PG&E FOCUS

To ensure the utility can deliver power fast enough, PG&E built an Economic Development Team (EDT) focused on "strategic growth and statewide economic prosperity" in 2026, following the development of an agreement to fast-track power delivery to the City of San Jose. EDT leadership was interviewed as part of this project, and stressed the EDT was developed to promote early planning for capacity growth by:

- Guiding local jurisdictions through the high-level project development process.
- Assessing the potential for multi-project "cluster" power upgrades.
- Implementing the utility's statewide Economic Development Rate (EDR) for eligible businesses (Contra Costa County businesses would qualify for the standard 12 percent discount).

INFRASTRUCTURE CAPACITY ANALYSIS AND PLANNING-LEVEL IMPLICATIONS

According to utility staff, PG&E is focused on delivering the current excess capacity in the NWED area to new customers. Staff noted that adding large, steady loads to the local grid allows fixed costs to be spread over more sales, which lowers overall rates. It is possible that for every new gigawatt of industrial project load, customer bills are reduced by approximately 1%.

PACHECO MANUFACTURING ZONE PPA

OVERVIEW

Pacheco is an unincorporated community in central Contra Costa County. Land use authority and long-range planning for Pacheco are governed by Contra Costa County through the County General Plan. As an unincorporated area, Pacheco does not have a standalone municipal general plan; instead, land use, infrastructure planning, and service provision are addressed through Countywide policies, land use designations, and coordination with special districts and regional service providers. The County's planning framework emphasizes directing development to established service areas, supporting employment-generating uses in appropriate locations, and ensuring that infrastructure expansion occurs in a fiscally and environmentally responsible manner (Contra Costa County General Plan, Growth Management Element).

Historically, Pacheco developed as a transportation- and logistics-oriented area due to its proximity to major highways, rail infrastructure, and industrial land. Existing land uses within the PPA include a mix of industrial, warehouse, distribution, airport-related, and commercial activities, along with limited residential development at the periphery. The concentration of regional transportation infrastructure has positioned Pacheco as a strategic employment and goods-movement area within central Contra Costa County (Contra Costa County General Plan, Land Use Element).

The County General Plan identifies the Pacheco area as suitable for industrial and employment uses, while also recognizing physical and environmental constraints that influence development potential. These constraints include proximity to waterways and drainage channels, floodplain considerations, airport safety, and land use compatibility requirements associated with Buchanan Field, and the presence of major utility and transportation corridors. These factors shape allowable development intensity and inform infrastructure planning decisions (Contra Costa County General Plan, Public Facilities and Services Element).

Infrastructure and public services in Pacheco are provided through a combination of County departments, special districts, and regional agencies. Infrastructure systems have generally evolved incrementally to support existing development patterns rather than to preserve unidentified future users. County policy requires that new development demonstrate the availability of adequate utilities, transportation access, and public services, or identify feasible improvements to support proposed uses (Contra Costa County General Plan, Growth Management Element).

Overall, the planning framework for Pacheco establishes that industrial and employment uses are appropriate where infrastructure is available and environmental constraints can be addressed. For planning-level evaluation of Priority Production Areas, the County General Plan provides a policy context that supports continued employment activity while signaling that intensified or new development beyond existing assumptions would require additional analysis, coordination with service providers, and targeted infrastructure investment.

WATER SUPPLY

Potable water service within the Pacheco area is provided by the Contra Costa Water District (CCWD), which owns, operates, and maintains the regional water supply, treatment, storage, and distribution system serving central Contra Costa County. CCWD provides retail water service to Pacheco as part of its integrated regional system, with primary supplies derived from the Central Valley Project (CVP), Delta diversions, and storage at Los Vaqueros Reservoir.

Based on CCWD's adopted Urban Water Management Plan (UWMP), water supplies are planned to reliably meet existing demand and forecast growth within the Pacheco area under normal and single-dry-year conditions. Demand projections reflected in the UWMP are based on existing land use patterns, employment activity, and adopted County land use assumptions and do not assume the introduction of new or intensified water-dependent industrial uses beyond baseline conditions. During extended multi-dry-year drought conditions, CCWD anticipates potential reductions in available supply at a districtwide level, with response measures including conservation programs, operational use of stored water supplies, and short-term water transfers to maintain service reliability.

Under existing conditions and adopted planning assumptions, water service within Pacheco is considered adequate to support current development patterns and incremental change consistent with County land use policies. Development that would substantially increase water demand beyond UWMP assumptions, particularly water-intensive industrial uses, would require further evaluation and coordination with CCWD to confirm supply availability and identify any necessary operational, contractual, or infrastructure measures.

SANITARY SEWER

Sanitary sewer service within the Pacheco area is provided by the Central Contra Costa Sanitary District (Central San), which owns, operates, and maintains the regional wastewater collection, conveyance, and treatment system serving central Contra Costa County. Wastewater generated in Pacheco is conveyed through local collection facilities and treated at Central San's regional treatment facilities.

Based on the adopted Sewer System Management Plan (SSMP), the sanitary sewer system is planned and operated to reliably convey peak wet-weather flows associated with existing development patterns. The SSMP does not identify surplus or unallocated conveyance or treatment capacity for new or intensified development. Capacity assurance is managed through monitoring, condition assessment, hydraulic evaluation, and implementation of capital improvements when deficiencies or increased overflow risk are identified.

Under existing conditions and adopted planning assumptions, sanitary sewer service within Pacheco is considered adequate to support current development and incremental change consistent with historical wastewater generation patterns. Development that would substantially increase wastewater flows beyond baseline assumptions—particularly intensified industrial or high-strength discharges—would require additional evaluation under Central San's capacity assurance framework and coordination with the District to determine whether localized or system-wide improvements are necessary.

STORM DRAINAGE

Storm drainage infrastructure within the Pacheco area is owned and maintained by Contra Costa County and the Contra Costa County Flood Control and Water Conservation District. The system consists of storm drains, culverts, channels, and associated conveyance and outfall facilities designed to collect and convey runoff generated by existing development patterns in accordance with applicable design standards.

Stormwater facilities in Pacheco have been constructed incrementally to manage runoff from existing land uses and impervious surfaces. The storm drainage system is not pre-sized to accommodate unknown future intensification, and no surplus drainage capacity is identified in public planning documents. Under existing conditions, storm drainage infrastructure is considered adequate to support current development, while projects that increase impervious surface area or alter drainage characteristics would require project-level hydrologic and hydraulic analysis and may necessitate on-site detention, conveyance improvements, or downstream system modifications.

ACCESS ROADS AND TRANSPORTATION

Roadway and transportation infrastructure serving the Pacheco area is owned and maintained by Contra Costa County, the California Department of Transportation (Caltrans), and, in some cases, private entities. The roadway network includes arterial roadways, collectors, local streets, and internal access roads serving industrial, commercial, airport, and logistics-related uses. Regional access is provided by Interstate 680, State Route 4, and adjacent freight rail corridors.

Transportation infrastructure has developed incrementally to support existing land uses and goods-movement activity. While key truck routes include Marina Vista Avenue, Pacheco Boulevard, and Shell Avenue, not all facilities are designed to accommodate increased levels of heavy truck traffic or intensified industrial activity without modification. Future development generating substantial employee trips, freight movement, or changes in traffic patterns would require site-specific transportation analysis and could necessitate roadway, intersection, or access improvements through project-level review.

COMMUNICATIONS

Telecommunications services within the Pacheco area are provided by a combination of private wireline, fiber, and wireless service providers. Communications infrastructure is installed in public rights-of-way and on private property pursuant to franchise agreements and easements and is developed in response to market demand and provider investment decisions.

Existing communications infrastructure generally supports standard commercial, industrial, and business telecommunications needs. Publicly available information does not comprehensively document fiber availability or capacity at the parcel level, and service availability may vary by location. Development with specialized or high-capacity connectivity requirements may require direct coordination with service providers and potential network extensions or upgrades evaluated on a case-by-case basis.

SUMMARY TABLES

The following tables summarize key infrastructure ownership, planning basis, existing service conditions, and planning-level capacity considerations for the Pacheco Manufacturing Zone PPA, based on adopted utility planning documents and regional service provider information.

Water Infrastructure Summary: Pacheco Manufacturing Zone

Owner / Operator	Contra Costa Water District (CCWD)
Service Area	Pacheco (Unincorporated Contra Costa County)
System Type	Integrated regional water supply, treatment, storage, and distribution system
Planning Basis	2020 Urban Water Management Plan (UWMP)
What It Supports Today	Existing commercial, industrial, airport-related, and employment uses
Explicit Surplus Capacity Identified?	No
How Capacity Is Managed	Demand forecasting, conservation programs, operational use of storage, regional coordination
Primary Constraints	Drought conditions; Delta regulatory and water quality constraints
Upgrade Triggers	Demand exceeding UWMP assumptions; prolonged drought conditions
Planning-Level Implications	Water-intensive or high-demand uses require further evaluation and coordination with CCWD
Level of Certainty	High for existing conditions; speculative for intensified demand

INFRASTRUCTURE CAPACITY ANALYSIS AND PLANNING-LEVEL IMPLICATIONS

Sanitary Sewer Infrastructure Summary: Pacheco Manufacturing Zone

Owner / Operator	Central Contra Costa Sanitary District (Central San)
Service Area	Pacheco and central Contra Costa County
System Type	Gravity sewers, pump stations, force mains, and regional treatment facilities
Planning Basis	2025 Sewer System Management Plan (SSMP)
What It Supports Today	Existing commercial, industrial, and employment-related wastewater flows
Explicit Surplus Capacity Identified?	No
How Capacity Is Managed	Monitoring, hydraulic evaluation, I/I control, System Evaluation, and Capacity Assurance Plan
Primary Constraints	Peak wet-weather flows; localized conveyance limitations
Upgrade Triggers	Identified deficiencies or increased overflow risk
Planning-Level Implications	Intensified industrial wastewater flows require site-specific evaluation and coordination with Central San
Level of Certainty	High for existing conditions; speculative for intensified demand

INFRASTRUCTURE CAPACITY ANALYSIS AND PLANNING-LEVEL IMPLICATIONS

Power Infrastructure Summary: Pacheco Manufacturing Zone

Provider	Pacific Gas and Electric Company (PG&E)
Service Area	Pacheco
System Type	Regional transmission system; local substations and distribution feeders
Planning Basis	PG&E systemwide reliability and safety planning; project-driven service requests
What It Supports Today	Existing industrial, airport-related, commercial, and transportation-support uses
Explicit Surplus Capacity Identified?	No
How Capacity Is Managed	Project-driven service requests; feeder- and substation-level evaluation
Primary Constraints	Location-specific feeder and substation capacity; safety and reliability requirements
Upgrade Triggers	New or intensified electrical demand
Planning-Level Implications	Energy-intensive or specialized uses may require early coordination with PG&E and localized upgrades
Level of Certainty	Adequate for existing uses; project-specific for future demand

INFRASTRUCTURE CAPACITY ANALYSIS AND PLANNING-LEVEL IMPLICATIONS

Storm Drainage Infrastructure Summary: Pacheco Manufacturing Zone

Owner / Operator	Contra Costa County; CCCFCD
Service Area	Pacheco (Unincorporated Contra Costa County)
System Type	Storm drains, culverts, channels, surface drainage, outfalls
Planning Basis	Existing development patterns; adopted design storm criteria
What It Supports Today	Current land uses and impervious surface coverage
Explicit Surplus Capacity Identified?	No
Primary Constraints	Increased imperviousness; downstream conveyance limitations
Upgrade Triggers	Project-level hydrologic and hydraulic studies
Planning-Level Implications	Intensified development may require detention or conveyance upgrades
Level of Certainty	High for existing conditions; project-specific for intensification

Access Roads & Transportation Infrastructure Summary: Pacheco Manufacturing Zone

Owner / Operator	Contra Costa County; Caltrans; private entities (select facilities)
Service Area	Pacheco (Unincorporated Contra Costa County)
System Type	Arterials, collectors, local roads, internal access roads, rail corridors
Planning Basis	Existing traffic patterns and incremental roadway development
What It Supports Today	Current vehicular traffic, freight movement, and airport access
Explicit Surplus Capacity Identified?	No
Primary Constraints	Roadway geometry; pavement condition; freight compatibility
Upgrade Triggers	Increased traffic volumes or freight activity
Planning-Level Implications	Higher-intensity industrial uses may require roadway or access improvements
Level of Certainty	High for existing conditions; project-specific for future demand

INFRASTRUCTURE CAPACITY ANALYSIS AND PLANNING-LEVEL IMPLICATIONS

Communications Infrastructure Summary: Pacheco Manufacturing Zone

Providers	Multiple private telecommunications carriers
Service Area	Pacheco (Unincorporated Contra Costa County)
System Type	Wireline, fiber, and wireless networks
What It Supports Today	Standard commercial, industrial, and business telecommunications need
Explicit Surplus Capacity Identified?	Not identified
How Capacity Is Managed	Carrier investment and project-level coordination
Primary Constraints	Variable fiber availability; carrier-specific network design
Upgrade Triggers	Development-specific connectivity requirements
Planning-Level Implications	Specialized or high-bandwidth uses may require targeted provider coordination
Level of Certainty	Variable by location

NORTHERN CONCORD PPA

OVERVIEW

The Northern Concord PPA is strongly influenced by its proximity to major regional transportation facilities, including SR 4, Interstate 680, and the Burlington Northern Santa Fe (BNSF) and Union Pacific (UP) rail corridors. These facilities provide regional highway and freight rail access that has historically supported industrial, logistics, and employment-generating uses. The area's transportation connectivity has been a defining factor in land use planning and infrastructure investment, shaping its continued role as a regional employment and production area.

A defining feature of the Northern Concord PPA context is its relationship with the former Concord Naval Weapons Station (CNWS), located immediately to the northeast. The City of Concord's General Plan anticipates substantial long-term redevelopment of the CNWS inland area, including significant employment growth associated with industrial, logistics, and business park uses. While buildout of the CNWS is expected to occur over an extended horizon and is not tied to a fixed timeline, its planned redevelopment reinforces the Northern Concord PPA's long-term role within the regional employment landscape.

Importantly, the City's General Plan does not assume that infrastructure capacity is preserved for unidentified future users within the Northern Concord PPA. Instead, infrastructure systems are planned to support existing development patterns and adopted growth assumptions associated with both the PPA and the CNWS reuse area, with additional capacity evaluated as specific projects are proposed. The City participates in Contra Costa County's Growth Management Program, and infrastructure planning is guided by Measure J principles emphasizing managed growth and phased infrastructure investment.

Overall, the Northern Concord PPA should be understood as an area with strong regional connectivity and long-term employment potential, but one where infrastructure planning is intentionally conservative and tied to adopted plans rather than speculative industrial intensification. The infrastructure assessments that follow baseline service conditions and constraints, providing a planning-level foundation for evaluating future development within this strategically located PPA.

WATER SUPPLY

Potable water service for the City of Concord is provided by the Contra Costa Water District (CCWD) as part of its integrated regional water supply system. Water supply planning is documented in CCWD's adopted 2020 Urban Water Management Plan (UWMP), which evaluates supply reliability under normal, single-dry-year, and multiple-dry-year conditions based on adopted land use assumptions and conservation-adjusted demand projections. The UWMP does not allocate surplus or unassigned water supply capacity for unidentified future development.

Water infrastructure serving the Northern Concord PPA has evolved incrementally to support industrial-adjacent, employment, and commercial land uses historically present along the SR 4 corridor. Under existing conditions, the system is structured to support current development patterns and incremental growth consistent with adopted General Plan assumptions. Uses with moderate water demand

characteristics like those historically present in the area are generally compatible with existing system conditions.

While no surplus capacity is identified, the water system serving the Northern Concord PPA is aligned with employment-oriented and industrial-adjacent land uses. Development that would substantially increase water demand beyond UWMP assumptions—particularly water-dependent industrial uses—would require coordination with CCWD and project-level evaluation to confirm supply availability and identify any necessary operational or infrastructure adjustments.

SANITARY SEWER

Sanitary sewer service for the City of Concord is provided through a service agreement with the Central Contra Costa Sanitary District (Central San), which owns, operates, and maintains the regional wastewater conveyance and treatment system. The City of Concord owns and operates its local collection system, while wastewater flows are conveyed to and treated at Central San's regional facilities. System planning and capacity management are documented in Central San's adopted 2025 Sewer System Management Plan (SSMP).

Sanitary sewer infrastructure serving the Northern Concord PPA has been developed incrementally to support existing industrial-adjacent, employment, and transportation-oriented land uses reflected in historical wastewater flow conditions. The SSMP does not identify surplus or unallocated conveyance or treatment capacity intended to accommodate unidentified future development. Instead, capacity assurance is achieved through monitoring, condition assessment, hydraulic evaluation, and targeted capital improvements when deficiencies or increased overflow risk are identified.

Under existing conditions, the sanitary sewer system is structured to support current development patterns and incremental growth consistent with adopted General Plan assumptions. Wastewater generation substantially exceeding baseline conditions, particularly associated with intensified industrial activity or higher-strength discharges, would require further evaluation under Central San's capacity assurance framework and coordination to determine whether localized or system-wide infrastructure improvements would be necessary.

STORM DRAINAGE

Storm drainage infrastructure within the City of Concord is owned and maintained by the City of Concord and the Contra Costa County Flood Control and Water Conservation District and consists of storm drains, culverts, channels, and associated conveyance facilities. Systems are designed to manage runoff generated by existing development patterns in accordance with design standards applicable at the time of construction.

Storm drainage facilities serving the Northern Concord PPA have been developed incrementally to support historical industrial, transportation, and employment-oriented land uses. The system is not pre-sized to accommodate unknown future intensification, and no surplus drainage capacity is identified in public planning documents.

Under existing conditions, storm drainage infrastructure supports runoff from current land uses and impervious surfaces. Development that increases impervious surface areas or alters runoff characteristics would require project-level hydrologic and hydraulic analysis and may necessitate on-site detention, conveyance improvements, or downstream system modifications implemented through project-specific review.

ACCESS ROADS AND TRANSPORTATION

Transportation infrastructure serving the Northern Concord PPA is owned and maintained by the City of Concord, Contra Costa County, and Caltrans and includes local streets, arterials, State Route 4, access to Interstate 680, and adjacent freight rail corridors operated by BNSF and Union Pacific.

Roadway and freight infrastructure have historically supported industrial, logistics, and employment-oriented uses and have been developed incrementally to accommodate existing traffic volumes rather than to preserve intensified future activity. Port Chicago Highway is designated as a truck route from SR-4 to Bates Avenue and serves as a key connection and access facility for the PPA. Under existing conditions, the transportation network supports current vehicular traffic and freight movement consistent with historical development patterns.

Future development generating substantial vehicle trips, freight activity, or employee traffic would require site-specific transportation analysis. Where necessary, roadways, intersections, access, or circulation improvements would be evaluated and implemented through project-level review.

COMMUNICATIONS

Telecommunications services within the City of Concord are provided by multiple private wireline, fiber, and wireless providers. Communications infrastructure is installed within public rights-of-way and on private property pursuant to franchise agreements and provider investment decisions.

Existing communications infrastructure serving the Northern Concord PPA generally supports standard business telecommunications needs and wireless voice and data services. Publicly available information does not comprehensively document fiber availability, redundancy, or capacity at the parcel or district level. Developments with specialized or high-capacity communications requirements would require direct coordination with service providers and potential network upgrades evaluated on a project-specific basis.

SUMMARY TABLES

Water Infrastructure Summary: Northern Concord PPA

Owner / Operator	Contra Costa Water District (CCWD)
Service Area	City of Concord – Northern Concord PPA
System Type	Integrated regional water supply system; CVP surface water; Los Vaqueros Reservoir storage; local distribution
Planning Basis	2020 Urban Water Management Plan (UWMP); adopted General Plan land use assumptions
What It Supports Today	Existing industrial-adjacent, employment, and commercial uses; incremental growth consistent with adopted assumptions
Explicit Surplus Capacity Identified?	No
How Capacity Is Managed	Regional supply planning; conservation programs; operational use of storage; project-level evaluation
Primary Constraints	Extended drought risk; Delta regulatory constraints; absence of surplus capacity for unidentified users
Upgrade Triggers	Demand exceeding UWMP assumptions; intensified water-dependent industrial uses
Planning-Level Implications	Higher-intensity or water-dependent uses require coordination with CCWD and project-level evaluation
Level of Certainty	High for existing conditions; speculative for intensified demand

Sanitary Sewer Infrastructure Summary Table --Northern Concord PPA

Owner / Operator	Central Contra Costa Sanitary District (Central San)
Service Area	City of Concord – Northern Concord PPA
System Type	Local collection system; regional conveyance and treatment
Planning Basis	2025 Sewer System Management Plan (SSMP); peak wet-weather flow conveyance
What It Supports Today	Existing industrial-adjacent, employment, and commercial wastewater flows
Explicit Surplus Capacity Identified?	No
How Capacity Is Managed	Monitoring, condition assessment, System Evaluation and Capacity Assurance Plan (SECAP), CIP
Primary Constraints	Wet-weather peak flows; regulatory SSO prevention requirements
Upgrade Triggers	Increased wastewater flows beyond baseline assumptions
Planning-Level Implications	Intensified industrial uses require site- or sub-basin-level evaluation
Level of Certainty	High for existing conditions; speculative for intensified wastewater generation

INFRASTRUCTURE CAPACITY ANALYSIS AND PLANNING-LEVEL IMPLICATIONS

Power Infrastructure Summary Table --Northern Concord PPA

Provider	Pacific Gas and Electric Company (PG&E)
Service Area	City of Concord – Northern Concord PPA
System Type	Regional transmission; local distribution feeders and substations
Planning Basis	PG&E Diablo Division systemwide planning; project-driven service requests
What It Supports Today	Existing industrial-adjacent, employment, and commercial electrical loads
Explicit Surplus Capacity Identified?	No
How Capacity Is Managed	Project-specific service request and interconnection review
Primary Constraints	Location-specific feeder and substation conditions; reliability and safety requirements
Upgrade Triggers	New or intensified electrical demand
Planning-Level Implications	Energy-intensive uses require coordination with PG&E and potential localized upgrades
Level of Certainty	Adequate for existing uses; project-specific for future demand

Storm Drainage Infrastructure Summary: Northern Concord PPA

Owner / Operator	City of Concord; Contra Costa County Flood Control and Water Conservation District
System Type	Storm drains, culverts, channels, and conveyance facilities
Planning Basis	Existing development patterns; adopted design standards
What It Supports Today	Current industrial-adjacent and employment land uses
Explicit Surplus Capacity Identified?	No
Primary Constraints	Increased imperviousness; downstream conveyance limitations
Upgrade Triggers	Development-driven drainage studies
Planning-Level Implications	Intensified development may require detention or conveyance upgrades
Level of Certainty	High for existing conditions; project-specific for intensification

INFRASTRUCTURE CAPACITY ANALYSIS AND PLANNING-LEVEL IMPLICATIONS

Access Roads & Transportation Infrastructure Summary: Northern Concord PPA

Owner / Operator	City of Concord; Contra Costa County; Caltrans
System Type	Arterials, collectors, local streets; regional highway and rail access
Planning Basis	Existing traffic patterns; incremental roadway development
What It Supports Today	Industrial-adjacent traffic, employment access, and freight-oriented activity
Explicit Surplus Capacity Identified?	No
Primary Constraints	Heavy truck activity; intersection performance; roadway geometry
Upgrade Triggers	Increased traffic volumes or freight demand
Planning-Level Implications	Higher-intensity industrial uses may require roadway or access improvements
Level of Certainty	High for existing conditions; project-specific for future demand

Communications Infrastructure Summary: Northern Concord PPA

Providers	Multiple private telecommunications carriers
System Type	Wireline, fiber, and wireless networks
What It Supports Today	Standard business and industrial-adjacent communications needs
Explicit Surplus Capacity Identified?	Not documented
Upgrade Triggers	Provider coordination based on tenant requirements
Planning-Level Implications	Specialized or high-capacity uses may require targeted upgrades
Level of Certainty	Variable by location and provider

WESTERN CONCORD PPA

OVERVIEW

The Western Concord Priority Production Area (PPA) consists of approximately 112 acres across two discontinuous areas within the City of Concord. The larger area is located south of Monument Boulevard immediately west of the Bay Area Rapid Transit (BART) right-of-way, while the smaller area lies immediately east of the BART corridor. Together, these sites form a compact, transit-adjacent employment area embedded within an established urban setting.

The Western Concord PPA is strongly influenced by its proximity to regional transit and transportation infrastructure, including the Concord BART Station, Monument Boulevard, Interstate 680, and nearby arterial roadways. This connectivity has historically supported employment, service-commercial, and light industrial uses that benefit from transit access and regional mobility rather than heavy freight or logistics activity.

Unlike the Northern Concord PPA, the Western Concord PPA is not directly associated with large-scale industrial corridors or the former Concord Naval Weapons Station. Instead, it functions as a smaller-scale, infill-oriented employment area within a predominantly urban context. Surrounding land uses include established residential neighborhoods, commercial corridors, and transit-supportive development, which influence both land use compatibility considerations and infrastructure planning assumptions.

Consistent with the City of Concord's General Plan and Measure J growth management principles, infrastructure systems serving the Western Concord PPA are planned to support existing development patterns and adopted growth assumptions rather than speculative industrial intensification. Infrastructure capacity is evaluated and expanded in response to defined projects, with attention to neighborhood compatibility, transit integration, and phased investment.

Overall, the Western Concord PPA should be understood as a transit-oriented, urban employment area with limited physical scale and a planning framework oriented toward incremental infill and reuse. The infrastructure assessments that follow document baseline service conditions and constraints to support planning-level evaluation of future development within this compact PPA.

WATER SUPPLY

Potable water service for the City of Concord is provided by the Contra Costa Water District (CCWD) as part of its integrated regional water supply system. Water supply planning is documented in CCWD's adopted 2020 Urban Water Management Plan (UWMP), which evaluates supply reliability under normal, single-dry-year, and multiple-dry-year conditions based on adopted land use assumptions and conservation-adjusted demand projections. The UWMP does not allocate surplus or unassigned water supply capacity for unidentified future development.

The Western Concord PPA is located within a fully urbanized, transit-adjacent area near the Concord BART corridor and established residential and commercial neighborhoods. Water infrastructure serving this area has been developed to support compact employment, commercial, and service-oriented uses consistent with historical demand patterns associated with urban infill development.

Under existing conditions, the water system is structured to support current employment and commercial uses and incremental infill development consistent with adopted General Plan assumptions. Development proposals with substantially higher water demand than historically present would require coordination with CCWD and project-level evaluation to confirm supply availability and identify any necessary system adjustments.

SANITARY SEWER

Sanitary sewer service for the City of Concord is provided through a service agreement with the Central Contra Costa Sanitary District (Central San), which owns, operates, and maintains the regional wastewater conveyance and treatment system. Under this arrangement, the City of Concord owns and operates its local collection system, while wastewater flows are conveyed to and treated at Central San's regional facilities. Sanitary sewer system planning and capacity management are documented in Central San's adopted 2025 Sewer System Management Plan (SSMP).

Sanitary sewer infrastructure serving the Western Concord PPA reflects its urban infill context and has been developed to support existing employment, commercial, and service-oriented uses adjacent to the BART corridor. The SSMP does not identify surplus or unallocated conveyance or treatment capacity intended to accommodate intensified or unidentified future development. Capacity is managed through monitoring, condition assessment, and implementation of improvements when deficiencies or increased overflow risk are identified.

Under existing conditions, the sanitary sewer system is supportive of current development patterns and incremental growth consistent with adopted land use assumptions. Development that would substantially increase wastewater flows or introduce higher-strength discharges would require further evaluation under Central San's capacity assurance framework and coordination to determine whether localized or system-wide infrastructure improvements would be necessary.

STORM DRAINAGE

Storm drainage infrastructure within the City of Concord is owned and maintained by the City of Concord and the Contra Costa County Flood Control and Water Conservation District and consists of storm drains, culverts, channels, and associated conveyance facilities. The system is designed to collect and convey runoff generated by existing development patterns in accordance with applicable design standards.

Storm drainage facilities serving the Western Concord PPA have been developed in an urban context and are intended to manage runoff associated with existing impervious surfaces and infill development. The system is not pre-sized to accommodate unknown future intensification, and no surplus drainage capacity is identified in public planning documents.

Future development that increases impervious surface area or alters drainage characteristics would require project-level hydrologic and hydraulic analysis and may necessitate on-site detention or localized conveyance improvements implemented through project-specific review.

ACCESS ROADS AND TRANSPORTATION

Roadway and transportation infrastructure serving the Western Concord PPA is owned and maintained by the City of Concord, Contra Costa County, and Caltrans. The roadway network includes local streets, arterials, and direct access to the Concord BART Station, providing strong regional transit connectivity.

The City of Concord is well-served by locally designated truck routes. Arterial truck routes include Willow Pass Road, Ygnacio Valley Road, Clayton Road, Concord Avenue/Monument Boulevard, and Treat Boulevard. Transportation infrastructure in this area has also been developed to support urban employment, transit access, and local circulation. Under existing conditions, the transportation system supports employee, visitor, and customer access consistent with commercial and employment uses in a transit-oriented setting.

Future developments generating increased traffic or parking demand would require site-specific transportation analysis. Any improvements would focus on local circulation, access management, and multimodal integration rather than freight-oriented roadway upgrades.

COMMUNICATIONS

Telecommunications services within the City of Concord are provided by a combination of private wireline, fiber, and wireless service providers. Communications infrastructure is installed within public rights-of-way and on private property pursuant to franchise agreements and market-driven investment decisions.

Existing communications infrastructure serving the Western Concord PPA generally supports business, office, and service-related telecommunications needs typical of transit-oriented employment areas. Development with specialized, high-capacity, or mission-critical communications requirements would require direct coordination with service providers and potential network extensions or upgrades evaluated on a project-specific basis.

SUMMARY TABLES

Water Infrastructure Summary: Western Concord PPA

Owner / Operator	Contra Costa Water District (CCWD)
Service Area	City of Concord – Western Concord PPA
System Type	Integrated regional water supply system; CVP surface water; Los Vaqueros Reservoir storage; local distribution
Planning Basis	2020 Urban Water Management Plan (UWMP); adopted General Plan land use assumptions
What It Supports Today	Existing commercial, service-oriented, and transit-adjacent employment uses
Explicit Surplus Capacity Identified?	No
How Capacity Is Managed	Regional supply planning; conservation programs; project-level evaluation
Primary Constraints	Drought risk; absence of surplus capacity
Upgrade Triggers	Development exceeding baseline water demand characteristics
Planning-Level Implications	Water-intensive uses require coordination with CCWD
Level of Certainty	High for existing conditions; speculative for intensified demand

Sanitary Sewer Infrastructure Summary: Western Concord PPA

Owner / Operator	Central Contra Costa Sanitary District (Central San)
Service Area	City of Concord – Western Concord PPA
System Type	Local collection; regional conveyance and treatment
Planning Basis	2025 Sewer System Management Plan (SSMP)
What It Supports Today	Commercial and service-oriented wastewater flows
Explicit Surplus Capacity Identified?	No
How Capacity Is Managed	Monitoring, SECAP, CIP
Primary Constraints	Wet-weather flows; urban system limitations
Upgrade Triggers	Increased wastewater flows beyond baseline
Planning-Level Implications	Higher intensity uses require system evaluation
Level of Certainty	High for existing conditions; project-specific for intensification

INFRASTRUCTURE CAPACITY ANALYSIS AND PLANNING-LEVEL IMPLICATIONS

Power Infrastructure Summary: Western Concord PPA

Provider	Pacific Gas and Electric Company (PG&E)
Service Area	City of Concord – Western Concord PPA
System Type	Regional transmission; local distribution
Planning Basis	PG&E Diablo Division planning; project-driven upgrades
What It Supports Today	Commercial, office, and service-oriented electrical loads
Explicit Surplus Capacity Identified?	No
Upgrade Triggers	New or specialized electrical demand
Planning-Level Implications	High-demand uses require coordination with PG&E
Level of Certainty	Adequate for existing uses; project-specific for future demand

Storm Drainage Infrastructure Summary: Western Concord PPA

Owner / Operator	City of Concord; Contra Costa County Flood Control and Water Conservation District
System Type	Urban storm drains and conveyance
What It Supports Today	Existing impervious surfaces in the urban context
Explicit Surplus Capacity Identified?	No
Upgrade Triggers	Project-level drainage studies
Planning-Level Implications	Infill may require localized improvements
Level of Certainty	High for existing conditions

Access Roads & Transportation Infrastructure Summary: Western Concord PPA

Owner / Operator	City of Concord; Contra Costa County; Caltrans
System Type	Local streets, arterials; BART access
What It Supports Today	Employee access, transit-oriented circulation
Explicit Surplus Capacity Identified?	No
Upgrade Triggers	Increased traffic or parking demand
Planning-Level Implications	Improvements focus on circulation and multimodal access
Level of Certainty	High for existing conditions

Communications Infrastructure Summary: Western Concord PPA

Providers	Multiple private telecommunications carriers
System Type	Wireline, fiber, wireless
What It Supports Today	Standard business and office communications
Explicit Surplus Capacity Identified?	Not documented
Upgrade Triggers	Provider coordination
Planning-Level Implications	Specialized connectivity may require upgrades
Level of Certainty	Variable by location

BAY POINT INDUSTRIAL SECTOR PPA

OVERVIEW

Bay Point is an unincorporated community located in northeastern Contra Costa County, bounded by the Cities of Pittsburg and Concord, Suisun Bay to the north, and State Route 4 along its southern edge. Formerly known as West Pittsburg, the community was renamed Bay Point in 1993 to establish a distinct identity separate from the surrounding incorporated cities. Land use authority, infrastructure planning, and service provision are administered primarily by Contra Costa County, with services delivered through a combination of County departments, special districts, and regional providers.

Historically, Bay Point developed as a waterfront- and rail-oriented industrial and shipping area, supported by proximity to the Southern Pacific rail line and deep-water access along Suisun Bay. Over time, the community transitioned toward predominantly residential uses, consisting largely of single-family neighborhoods and multi-family housing, with limited commercial and light industrial activity concentrated along corridors such as Willow Pass Road, Bailey Road, and Port Chicago Highway.

Bay Point occupies a strategic location within the East County subregion, with regional connectivity provided by State Route 4, the Bay Point BART Station, Amtrak rail service, and nearby freight corridors. While BART provides direct transit access to employment centers in Central and West Contra Costa County and the broader Bay Area, local circulation and last-mile connectivity remain key considerations for residents and employers.

From an environmental and infrastructure perspective, Bay Point includes a concentration of physical and environmental constraints. Portions of the community are subject to flood risk, sea-level rise exposure, and proximity to creeks and drainage channels and associated floodplains. Areas within Bay Point fall inside FEMA-mapped 100-year and 500-year flood hazard zones, and several critical infrastructure elements, including transportation corridors, transit facilities, and utility systems, are identified as vulnerable to flooding and climate-related hazards.

Bay Point is also recognized at the state and county level as a disadvantaged community, with elevated exposure to air quality impacts, hazardous materials, and legacy industrial contamination. CalEnviroScreen data and County vulnerability assessments indicate high rankings for diesel particulate matter, traffic exposure, proximity to hazardous waste facilities, and cleanup sites, reflecting cumulative environmental burdens that influence infrastructure planning and development considerations.

Within this context, infrastructure and service systems in Bay Point have evolved incrementally to support existing residential and commercial uses rather than to preserve intensified or specialized industrial activity. Planning for utilities, transportation, and public services is constrained by legacy development patterns, environmental conditions, and County growth management policies and is oriented toward maintaining baseline service levels while addressing identified vulnerabilities and service gaps.

WATER SUPPLY

Potable water service within Bay Point and portions of the City of Pittsburg is provided by Golden State Water Company (GSWC), an investor-owned utility regulated by the California Public Utilities Commission. GSWC owns and operates the local water distribution system and relies primarily on Contra Costa Water District (CCWD) for wholesale treated surface water supply, supplemented by limited local groundwater production. Water supply planning and system operations are documented in GSWC's adopted Urban Water Management Plan.

GSWC's water supply portfolio for the Bay Point service area is dominated by imported surface water delivered through CCWD's regional conveyance facilities, with groundwater wells used primarily for peaking and operational reliability rather than as a scalable base supply. Under adopted UWMP assumptions, total water supplies are projected to be sufficient to meet existing demand and modest growth within the service area through the planning horizon, including during single- and multiple-dry-year scenarios. Demand projections reflect existing land-use patterns, including residential, commercial, and limited-light-industrial uses, and do not assume the introduction of new water-intensive industrial or manufacturing activities beyond those historically present.

Based on adopted planning documents, the existing water system is structured to reliably support current residential and commercial demand, incremental growth consistent with adopted land use and population forecasts, and existing industrial and employment uses with relatively modest water demand characteristics. The planning framework emphasizes supply reliability and regulatory compliance rather than provision of surplus or unallocated capacity, and the UWMP does not identify excess capacity specifically available to support high-intensity or water-dependent industrial development.

Several factors influence the system's flexibility to accommodate increased demand, including groundwater limitations related to basin conditions and water quality, long-term climate and Delta water quality considerations, and the absence of major system expansion projects identified for the Bay Point service area. Capital planning is focused on system reliability and maintenance rather than growth-driven capacity expansion. Under existing conditions, the Bay Point water system is considered adequate for current and incremental demand, while higher-intensity or water-dependent industrial uses would require further evaluation and coordination with both GSWC and CCWD and may necessitate infrastructure investment.

SANITARY SEWER

Sanitary sewer service for Bay Point is provided by the Delta Diablo Sanitation District, which owns, operates, and maintains the regional wastewater collection and conveyance system serving Bay Point, the City of Pittsburg, the City of Antioch, and surrounding areas. The system consists of gravity sewers, pump stations, and force mains and is regulated under the State Water Resources Control Board's Statewide General Waste Discharge Requirements for Sanitary Sewer Systems. System planning and capacity assurance are documented in Delta Diablo's adopted Sewer System Management Plan.

The sanitary sewer system is designed and operated to convey peak wastewater flows associated with existing development patterns, with capacity defined in the SSMP based on performance during design

storm events. The planning framework emphasizes system reliability, overflow prevention, and regulatory compliance rather than the provision of surplus capacity for unidentified future users. Capacity assurance is managed through monitoring, condition assessment, maintenance, and implementation of capital improvements where deficiencies or increased overflow risk are identified.

The SSMP does not identify excess or unallocated capacity for new high-intensity industrial development. Instead, Delta Diablo employs a System Evaluation and Capacity Assurance Plan to identify hydraulic constraints and prioritize improvements through its Capital Improvement Program. Under existing conditions, the system is structured to reliably support existing residential, commercial, and light industrial uses consistent with historical development trends, while additional industrial intensity would require further analysis, coordination with the District, and potential infrastructure upgrades.

COMMUNICATIONS

Telecommunications services within Bay Point are provided by a combination of private carriers, including incumbent wireline providers, competitive fiber operators, and wireless service providers. Communications infrastructure is installed within public rights-of-way and on private property pursuant to franchise agreements and easements.

Existing communications infrastructure generally supports residential and commercial broadband service, standard business telecommunications needs, and wireless voice and data services. Publicly available data do not comprehensively document fiber availability, redundancy, or capacity at the parcel or cluster level, and service conditions may vary by location. Industrial uses with specialized connectivity requirements would need case-by-case coordination with service providers and potential network extensions or upgrades.

STORM DRAINAGE

Storm drainage infrastructure within Bay Point is owned and maintained primarily by Contra Costa County and consists of storm drains, culverts, channels, and outfalls designed to convey runoff associated with existing development patterns. Systems were constructed in accordance with design standards applicable at the time of development and have evolved incrementally over time.

Stormwater facilities are intended to manage runoff from current land uses and impervious surfaces and are not uniformly pre-sized to accommodate unknown future intensification. Capacity is sensitive to increases in impervious areas, changes in runoff timing and volume, downstream conveyance limitations, and regulatory requirements related to flood control and water quality. Industrial development that alters drainage characteristics would require project-level drainage studies and potentially localized stormwater improvements.

ACCESS ROADS AND TRANSPORTATION

Access roads serving Bay Point are owned and maintained by Contra Costa County, other public agencies, and, in some cases, private entities. The roadway network includes arterial roads, collectors, local streets, and internal private roadways serving residential, commercial, and light industrial parcels.

INFRASTRUCTURE CAPACITY ANALYSIS AND PLANNING-LEVEL IMPLICATIONS

The existing roadway network supports current traffic volumes, light industrial truck access, and regional connectivity via nearby highways. Roadway infrastructure has developed incrementally and is not uniformly designed to accommodate high-intensity industrial freight activity. Transportation capacity is influenced by roadway geometry, pavement condition, intersection performance, and freight connectivity. Industrial uses generating substantial freight or employee traffic would require further transportation analysis and may necessitate roadway or intersection improvements, depending on the scale and nature of future development.

SUMMARY TABLES

Water Infrastructure Summary: Bay Point Industrial Sector

Category	
Owner / Operator	Golden State Water Company (GSWC)
Wholesale Supplier	Contra Costa Water District (CCWD)
Service Area	Bay Point and portions of the City of Pittsburg
System Type	Imported surface water supply; local distribution mains, storage, and pressure zones; limited groundwater wells
Planning Basis	Urban Water Management Plan demand projections based on existing land use and population growth; supply reliability under normal and multi-dry-year conditions
What It Supports Today	Existing residential, commercial, and light industrial uses; incremental growth consistent with adopted forecasts
Explicit Surplus Capacity Identified?	No
How Capacity Is Managed	Wholesale supply agreements; demand forecasting; conservation programs; system reliability and maintenance planning
Primary Constraints	Limited role of groundwater; Delta water quality and climate uncertainty; absence of growth-oriented expansion projects
Upgrade Triggers	Increased demand beyond UWMP assumptions; changes in land use intensity; distribution system or pressure deficiencies
Implications for PPAs	Higher-intensity or water-dependent industrial uses would likely require further evaluation and coordination with GSWC and CCWD and potential local system upgrades
Level of Certainty	High for existing conditions; speculative for future industrial intensification

Sanitary Sewer Infrastructure Summary: Bay Point Industrial Sector

Category	
Owner / Operator	Delta Diablo Sanitation District
Service Area	Bay Point; City of Pittsburg; City of Antioch
System Type	Regional wastewater collection and conveyance system; gravity sewers, pump stations, force mains
Planning Basis	Peak wet-weather flow conveyance; sanitary sewer overflow (SSO) prevention; Sewer System Management Plan
What It Supports Today	Existing residential, commercial, and light industrial wastewater flows consistent with historical development
Explicit Surplus Capacity Identified?	No
How Capacity Is Managed	Monitoring and condition assessment; inflow and infiltration control; System Evaluation and Capacity Assurance Plan (SECAP); Capital Improvement Program (CIP)
Upgrade Triggers	Identified hydraulic deficiencies; increased overflow risk; failure to meet adopted design or performance criteria
Implications for PPAs	Additional industrial intensity would likely require site- or sub-basin-level evaluation and potential collection or conveyance system upgrades
Level of Certainty	High for existing conditions; speculative for future industrial intensification

INFRASTRUCTURE CAPACITY ANALYSIS AND PLANNING-LEVEL IMPLICATIONS

Power Infrastructure Summary: Bay Point Industrial Sector

Provider	Pacific Gas and Electric Company (PG&E)
Service Area	Bay Point
System Type	Regional transmission system; local substations and distribution feeders
Planning Basis	PG&E systemwide reliability and safety planning; project-driven service requests
What It Supports Today	Existing residential, commercial, and light industrial loads
Explicit Surplus Capacity Identified?	No
How Capacity Is Managed	Project-driven service requests; feeder- and substation-level evaluation
Primary Constraints	Location-specific feeder and substation capacity; safety and reliability requirements
Upgrade Triggers	New or intensified electrical demand
Planning-Level Implications	Energy-intensive or specialized uses may require early coordination with PG&E and localized upgrades
Level of Certainty	Adequate for existing uses; project-specific for future demand

INFRASTRUCTURE CAPACITY ANALYSIS AND PLANNING-LEVEL IMPLICATIONS

Storm Drainage Infrastructure Summary: Bay Point Industrial Sector

Owner / Operator	Contra Costa County and local jurisdictions
Service Area	Bay Point
System Type	Storm drains, culverts, channels, and surface drainage facilities
Planning Basis	Design storm criteria and standards applicable at time of construction
What It Supports Today	Runoff from existing development patterns and impervious surfaces
Explicit Surplus Capacity Identified?	No
How Capacity Is Managed	Incremental system improvements; project-level drainage review
Primary Constraints	Increased impervious surface area; downstream conveyance limitations; regulatory flood control and water quality requirements
Upgrade Triggers	Development that alters runoff volume or timing
Implications for PPAs	Industrial development would likely require site-specific drainage studies and localized improvements
Level of Certainty	High for existing conditions; speculative for future intensification

INFRASTRUCTURE CAPACITY ANALYSIS AND PLANNING-LEVEL IMPLICATIONS

Access Roads and Transportation Infrastructure Summary: Bay Point Industrial Sector

Owner / Operator	Contra Costa County; local jurisdictions; private entities
Service Area	Bay Point
System Type	Arterial roads, collectors, local streets, and internal access roads
Planning Basis	Existing roadway design standards and historical traffic patterns
What It Supports Today	Current traffic volumes; light industrial and commercial truck access
Explicit Surplus Capacity Identified?	No
How Capacity Is Managed	Incremental roadway improvements; project-level traffic analysis
Primary Constraints	Roadway geometry; pavement condition; intersection performance
Upgrade Triggers	Increased freight activity or employee traffic
Implications for PPAs	Higher-intensity industrial uses may require roadway or intersection improvements
Level of Certainty	High for existing conditions; speculative for future intensification

Communications Infrastructure Summary: Bay Point Industrial Sector

Owner / Operator	Multiple private telecommunications providers
Service Area	Bay Point
System Type	Wireline, fiber, and wireless communications networks
Planning Basis	Market-driven provider investment and franchise agreements
What It Supports Today	Residential, commercial, and standard business communications
Explicit Surplus Capacity Identified?	No
How Capacity Is Managed	Provider-specific network planning and service extensions
Primary Constraints	Uneven fiber availability; proximity to backbone facilities
Upgrade Triggers	Projects with specialized or high-capacity connectivity needs
Implications for PPAs	Industrial users may require direct provider coordination and targeted upgrades
Level of Certainty	High for existing conditions; speculative for specialized demand

NORTHERN WATERFRONT

OVERVIEW

The Northern Waterfront Priority Production Area (PPA) encompasses approximately 1,243 acres in the northeastern portion of the City of Pittsburg. The PPA is located north of State Route 4 and east of Downtown Pittsburg, extending along the southern shoreline of the Sacramento–San Joaquin Delta. The Burlington Northern Santa Fe (BNSF) railway traverses the northern portion of the PPA, while the Union Pacific (UP) railway runs through its southern extent, establishing the area as a historically significant industrial and freight-oriented corridor within East Contra Costa County.

The City of Pittsburg is a centrally located East Contra Costa County jurisdiction whose development pattern reflects its long-standing role as an industrial and employment center. The Northern Waterfront PPA is directly influenced by proximity to navigable waterways, regional rail infrastructure, and major transportation corridors, alongside adjacent residential neighborhoods and commercial districts. These locational characteristics have historically supported industrial, logistics, and employment-generating uses concentrated along the waterfront and rail corridors.

Pittsburg's adopted 2040 General Plan provides the long-range policy framework governing land use, infrastructure investment, and public services within the City, including the Northern Waterfront PPA. The General Plan emphasizes compact growth, infill development, and redevelopment of underutilized sites within established service areas, while discouraging outward expansion beyond the City's Urban Limit Line and Sphere of Influence. This approach is intended to maximize the efficiency of existing infrastructure systems and align growth with available public services.

Land uses within the Northern Waterfront PPA are characterized by designated industrial and employment districts intended to support logistics, manufacturing, energy-related uses, and other job-generating activities, interspersed with legacy industrial operations and transportation infrastructure. Economic development is identified as a key City objective, with policies emphasizing infrastructure adequacy and service reliability to support existing businesses and attract future employment, without presuming specific end users or development programs.

Importantly, while the General Plan includes policies to ensure adequate utilities, transportation infrastructure, and capital facilities within areas such as the Northern Waterfront PPA, it does not allocate or reserve infrastructure capacity for unidentified future industrial users. Infrastructure planning is grounded in existing conditions, adopted land use patterns, and baseline growth assumptions, with additional evaluation required as specific development proposals emerge.

Within this context, the infrastructure discussion that follows documents existing system ownership, service characteristics, and known constraints specific to the Northern Waterfront Priority Production Area. This analysis establishes baseline conditions and planning-level considerations relevant to future development within the PPA and is intended to inform subsequent phases of work, rather than to assume project-specific improvements or tenant requirements.

WATER SUPPLY

Potable water service within the Northern Waterfront Priority Production Area is provided through the City of Pittsburg's municipal water system. The system is planned and operated to support existing development and forecasted growth consistent with adopted land use assumptions, with planning guidance documented in the City's Water System Master Plan and Water Contingency Plan. These documents emphasize system reliability, pressure management, and infrastructure maintenance rather than growth-driven expansion.

Under adopted planning assumptions, the water system is structured to support existing residential, commercial, institutional, and moderate industrial uses within the Northern Waterfront PPA, as well as incremental growth consistent with adopted projections. Planning documents do not identify surplus or unallocated water supply capacity intended to accommodate high-intensity or water-dependent industrial uses beyond baseline assumptions.

The Water Contingency Plan establishes operational priorities and demand management measures during periods of supply constraint, reinforcing a planning framework focused on essential uses and system resilience. Under existing conditions, water service within the Northern Waterfront PPA is considered adequate for current development patterns, while new or intensified water demand beyond adopted assumptions would require project-specific evaluation, coordination with the City, and potential upgrades to distribution facilities, storage, pressure zones, or supply arrangements.

SANITARY SEWER

Sanitary sewer service for the Northern Waterfront Priority Production Area is provided by the Delta Diablo Sanitation District, which owns, operates, and maintains the regional wastewater collection and conveyance system serving Pittsburg, Bay Point, Antioch, and surrounding communities. Wastewater generated within the PPA is conveyed entirely through Delta Diablo's regional facilities.

Based on Delta Diablo's adopted Sewer System Management Plan, the sanitary sewer system is planned and operated to convey peak wet-weather flows associated with existing development patterns and to prevent sanitary sewer overflows. The planning framework emphasizes system reliability, monitoring, and regulatory compliance rather than the provision of surplus capacity for unidentified future users.

Under existing conditions, the sanitary sewer system is considered adequate to support current residential, commercial, and industrial uses within the Northern Waterfront PPA, consistent with historical development patterns. Increased wastewater generation associated with intensified industrial uses or higher-strength discharges would require site- or sub-basin-level evaluation, coordination with Delta Diablo, and potential inclusion of capacity improvements in the District's Capital Improvement Program.

STORM DRAINAGE

Storm drainage infrastructure within the Northern Waterfront Priority Production Area is primarily owned and maintained by the City of Pittsburg, with certain downstream facilities under County or regional flood

control jurisdiction. The system consists of storm drains, culverts, channels, and outfalls designed to manage runoff associated with existing development patterns and applicable design storm criteria.

Storm drainage facilities within the PPA have been constructed incrementally over time and are not uniformly pre-sized to accommodate intensified development beyond existing conditions. System performance is sensitive to increases in impervious surface area, changes in runoff timing and volume, downstream conveyance limitations, and regulatory requirements related to flood control and water quality.

Under existing conditions, storm drainage infrastructure is considered adequate to support current development within the Northern Waterfront PPA. Industrial development that increases impervious surface area or alters drainage characteristics would require project-level hydrologic and hydraulic analysis and may necessitate on-site detention, conveyance upgrades, or downstream system improvements.

ACCESS ROADS AND TRANSPORTATION

Roadway and transportation infrastructure serving the Northern Waterfront Priority Production Area is owned and maintained by the City of Pittsburg, Contra Costa County, and, in some cases, private entities. The roadway network includes arterials, collectors, local streets, and internal access roads serving industrial, commercial, and waterfront-oriented uses. Regional connectivity is provided by State Route 4 and freight rail corridors operated by the BNSF and Union Pacific railroads.

The Northern Waterfront PPA, located north of SR-4, is served by multiple truck routes. These include the arterial facilities of Loveridge Road, Pittsburg-Antioch Highway, West Leland Road, Harbor Street, and East 3rd Street.

Higher-intensity industrial development within the Northern Waterfront PPA may require roadway improvements such as pavement strengthening, intersection upgrades, access modifications, or internal circulation enhancements. The scope and feasibility of such improvements would depend on the scale, intensity, and location of future development and would be evaluated through a project-level transportation review.

COMMUNICATIONS

Telecommunications services within the Northern Waterfront Priority Production Area are provided by multiple private wireline, fiber, and wireless service providers. Communications infrastructure is installed within public rights-of-way and on private property pursuant to franchise agreements and easements and is developed in response to market demand and provider investment decisions.

Existing communications infrastructure generally supports standard commercial, industrial, and business telecommunications needs within the PPA. Publicly available information does not comprehensively

document fiber availability, redundancy, or capacity at the parcel or district level, and service conditions may vary by location.

Development with specialized, high-capacity, or mission-critical communications requirements may require direct coordination with service providers and potential network extensions or upgrades evaluated on a project-specific basis.

SUMMARY TABLES

Water Infrastructure Summary: City of Pittsburg

Owner / Operator	City of Pittsburg
Service Area	City of Pittsburg
System Type	Municipal water supply, treatment, storage, and distribution system
Planning Basis	Water System Master Plan; Water Contingency Plan; adopted land use assumptions
What It Supports Today	Existing residential, commercial, institutional, and moderate industrial uses
Explicit Surplus Capacity Identified?	No
How Capacity Is Managed	Asset management, pressure management, demand forecasting, contingency planning
Primary Constraints	Supply reliability during drought; pressure and distribution limitations; contingency-stage restrictions
Upgrade Triggers	Demand exceeding adopted assumptions; localized pressure or capacity deficiencies; contingency conditions
Implications for PPAs	Higher-intensity or water-dependent uses require project-specific evaluation and potential system upgrades
Level of Certainty	High for existing conditions; speculative for intensified demand

INFRASTRUCTURE CAPACITY ANALYSIS AND PLANNING-LEVEL IMPLICATIONS

Sanitary Sewer Infrastructure Summary: City of Pittsburg

Owner / Operator	Delta Diablo Sanitation District
Service Area	City of Pittsburg (regional system)
System Type	Gravity sewers, pump stations, force mains
Planning Basis	Sewer System Management Plan; peak wet-weather flow conveyance
What It Supports Today	Existing residential, commercial, and industrial wastewater flows
Explicit Surplus Capacity Identified?	No
How Capacity Is Managed	Monitoring, I/I management, condition assessment, Capital Improvement Program
Primary Constraints	Wet-weather peak flows; localized conveyance constraints; SSO prevention requirements
Upgrade Triggers	Identified deficiencies or elevated overflow risk
Implications for PPAs	Increased industrial intensity requires site-specific analysis and coordination with Delta Diablo
Level of Certainty	High for existing conditions; speculative for intensified wastewater generation

Power Infrastructure Summary: City of Pittsburg

Provider	Pacific Gas and Electric Company (PG&E)
Service Area	City of Pittsburg
System Type	Regional transmission system; local substations and distribution feeders
Planning Basis	PG&E systemwide reliability and safety planning; project-driven service requests
What It Supports Today	Existing residential, commercial, and industrial loads
Explicit Surplus Capacity Identified?	No
How Capacity Is Managed	Project-driven service requests; feeder- and substation-level evaluation
Primary Constraints	Location-specific feeder and substation capacity; safety and reliability requirements
Upgrade Triggers	New or intensified electrical demand
Planning-Level Implications	Energy-intensive or specialized uses may require early coordination with PG&E and localized upgrades
Level of Certainty	Adequate for existing uses; project-specific for future demand

INFRASTRUCTURE CAPACITY ANALYSIS AND PLANNING-LEVEL IMPLICATIONS

Storm Drainage Infrastructure Summary: City of Pittsburg

Owner / Operator	City of Pittsburg; Contra Costa County / regional flood control (select facilities)
Service Area	City of Pittsburg
System Type	Storm drains, culverts, surface drainage, outfalls
Planning Basis	Existing development patterns; adopted design storm criteria
What It Supports Today	Current land uses and impervious surface coverage
Explicit Surplus Capacity Identified?	No
How Capacity Is Managed	Incremental improvements tied to development and drainage studies
Primary Constraints	Increased imperviousness; downstream conveyance limitations; regulatory requirements
Upgrade Triggers	Project-level drainage studies; changes in runoff characteristics
Implications for PPAs	Intensified industrial development may require detention or conveyance upgrades
Level of Certainty	High for existing conditions; project-specific for intensification

Access Roads & Transportation Infrastructure Summary: City of Pittsburg

Owner / Operator	City of Pittsburg; Contra Costa County; private entities (select roads)
Service Area	City of Pittsburg
System Type	Arterials, collectors, local streets, internal access roads
Planning Basis	Existing traffic patterns; incremental roadway development
What It Supports Today	Current vehicular traffic and light industrial truck access
Explicit Surplus Capacity Identified?	No
How Capacity Is Managed	Project-level traffic review and roadway improvements
Primary Constraints	Pavement condition; roadway geometry; intersection performance; freight compatibility
Upgrade Triggers	Increased traffic volumes or freight activity
Implications for PPAs	Higher-intensity industrial uses may require roadway or access improvements
Level of Certainty	High for existing conditions; project-specific for future demand

NORTHERN WATERFRONT INDUSTRIAL CORRIDOR

OVERVIEW

The Northern Waterfront Industrial Corridor is a Priority Production Area (PPA) identified in the Northwest Economic Development (NWED) analysis and encompasses approximately 1,027 acres in the northern and northeastern portions of the City of Antioch. The majority of the PPA lies within Antioch's city limits, with a small portion in unincorporated Contra Costa County within the City's Sphere of Influence. The PPA is generally located about one mile north of State Route 4 and approximately one-half mile north of the Union Pacific (UP) rail corridor.

The City of Antioch is located along the southern shore of the Delta and functions as both a residential community and a regional employment center in eastern Contra Costa County. Land use patterns in the city reflect a mix of established neighborhoods, commercial corridors, and significant industrial and employment areas, including the Northern Waterfront Industrial Corridor. Antioch's General Plan establishes a long-term framework to accommodate growth while ensuring that infrastructure and public services are available, coordinated, and financially sustainable.

Antioch's physical development pattern has been shaped by regional transportation infrastructure, including State Route 4, freight rail corridors, and proximity to navigable waterways. Industrial and employment use within the Northern Waterfront Industrial Corridor is concentrated near major transportation corridors and utility infrastructure and supports a range of activities, including logistics, manufacturing, energy-related uses, and port-adjacent operations. These uses coexist with longstanding residential and commercial development elsewhere in the city, underscoring the importance of infrastructure coordination and land-use compatibility.

The General Plan emphasizes managed growth through defined planning areas and focused development districts, with policies requiring that new development occur only where adequate public facilities and infrastructure are available or can be provided. The City participates in a Growth Management Program with other County jurisdictions and coordinates with regional agencies to align land use decisions with transportation capacity, utility service availability, and environmental constraints. Infrastructure planning is structured to support adopted land use assumptions rather than speculative or unplanned intensification.

Antioch's planning framework supports employment growth and diversification while recognizing the City's historic and ongoing role in industrial and refinery-related activities. General Plan policies also address environmental justice, public health, and community compatibility, particularly in areas where industrial uses are located near residential neighborhoods. These considerations are especially relevant within and adjacent to the Northern Waterfront Industrial Corridor PPA.

Overall, the Northern Waterfront Industrial Corridor PPA should be understood as a long-established industrial and employment area with strong regional connectivity and significant economic importance, but one where infrastructure planning is intentionally conservative and tied to adopted plans.

WATER SUPPLY

Potable water service for the City of Antioch is provided by the Contra Costa Water District (CCWD) as part of an integrated regional water supply system serving central and eastern Contra Costa County. Water supplies are derived primarily from the Central Valley Project (CVP), Delta diversions, and storage in Los Vaqueros Reservoir, with treatment and distribution managed by CCWD.

Based on the adopted 2020 Urban Water Management Plan, CCWD's water supply portfolio is planned to reliably meet existing demands and forecasted growth within Antioch under normal and single-dry-year conditions. Demand projections reflect historical water use, adopted General Plan land use assumptions, population and employment growth forecasts, and conservation-adjusted per-capita demand factors. The UWMP does not identify surplus or unallocated water supply capacity specific to the Northern Waterfront Industrial Corridor, nor does it assume new or intensified water-dependent industrial uses beyond adopted demand assumptions based on the City's current General Plan land use designation of Eastern Waterfront Employment Focus Area and average demand data of other similar industrial users served by CCWD.

During extended multi-dry-year drought conditions, CCWD anticipates potential reductions in available supplies associated with CVP allocations and Delta regulatory constraints. Planning responses include conservation programs, operational use of stored water supplies, and short-term transfers or purchases to maintain service reliability. Under existing conditions, water service within the Northern Waterfront Industrial Corridor PPA is considered adequate to support existing development patterns and adopted growth assumptions. Industrial development that would substantially increase water demand beyond UWMP assumptions would require further evaluation and coordination with CCWD.

SANITARY SEWER

Sanitary sewer service for the City of Antioch is provided by the Delta Diablo Sanitation District (Delta Diablo), which owns, operates, and maintains the regional wastewater collection and conveyance system serving Antioch, Pittsburg, Bay Point, and surrounding areas. Wastewater generated within the Northern Waterfront Industrial Corridor PPA is conveyed through gravity sewers, pump stations, and force mains and treated at Delta Diablo's regional treatment facilities.

The adopted 2025 Sewer System Management Plan indicates that the sanitary sewer system is planned and operated to reliably convey peak wet-weather flows associated with existing development patterns. The SSMP does not identify surplus or unallocated conveyance or treatment capacity for new or intensified development. Capacity is managed through monitoring, hydraulic evaluation, inflow and infiltration control, and targeted capital improvements when deficiencies or increased overflow risk are identified.

Under existing conditions, sanitary sewer service within the Northern Waterfront Industrial Corridor PPA is considered adequate to support existing industrial, employment, and commercial uses consistent with historical wastewater generation patterns. Development that would substantially increase wastewater flows or introduce higher-strength discharges beyond baseline assumptions would require further

evaluation and coordination with Delta Diablo and could trigger the need for localized or system-wide infrastructure improvements.

STORM DRAINAGE

Storm drainage infrastructure within the Northern Waterfront Industrial Corridor PPA is owned and maintained by the City of Antioch and the Contra Costa County Flood Control and Water Conservation District. The system consists of storm drains, culverts, channels, and associated conveyance and outfall facilities designed to manage runoff from existing development in accordance with applicable design standards.

Stormwater facilities in this area have generally been constructed incrementally to serve historical industrial, employment, and transportation-oriented land uses. The system is not pre-sized to accommodate unknown future intensification, and no surplus drainage capacity is identified in public planning documents. Under existing conditions, storm drainage infrastructure is considered adequate to support current development patterns. Development that increases impervious surface area or alters drainage characteristics would require project-level hydrologic and hydraulic analysis and could necessitate on-site detention, conveyance improvements, or downstream system modifications.

ACCESS ROADS AND TRANSPORTATION

Roadway and transportation infrastructure serving the Northern Waterfront Industrial Corridor PPA is owned and maintained by the City of Antioch, Contra Costa County, and Caltrans. The roadway network includes local streets, collectors, arterials, and regional corridors, including State Route 4, that provide access to industrial districts, employment centers, and regional freight routes.

Wilbur Avenue, a two-lane facility, and East 18th Street, a four-lane facility, are arterial truck routes that travel through the PPA to connect to SR-160 interchanges. East 18th Street also connects to Hillcrest Avenue and its interchange with SR-4. While the network supports current vehicular traffic and industrial access, not all facilities are designed to accommodate increased levels of heavy truck traffic without modification. Future development generating substantial freight movement, employee trips, or traffic volumes would require site-specific transportation analysis and could necessitate roadway, intersection, or access improvements through project-level review.

COMMUNICATIONS

Telecommunications services within the Northern Waterfront Industrial Corridor PPA are provided by multiple private wireline, fiber, and wireless carriers. Communications infrastructure is installed within public rights-of-way and on private property pursuant to franchise agreements and easements and is developed based on market demand and provider investment decisions.

INFRASTRUCTURE CAPACITY ANALYSIS AND PLANNING-LEVEL IMPLICATIONS

Existing communications infrastructure generally supports industrial, commercial, and standard business telecommunications needs typical of established employment areas. Publicly available information does not comprehensively document fiber availability, redundancy, or capacity at the parcel or district level, and service availability may vary by location. Development with specialized, high-capacity, or mission-critical connectivity requirements would require direct coordination with service providers and potential network extensions or upgrades evaluated on a project-specific basis.

SUMMARY TABLES

Water Infrastructure Summary: City of Antioch

Owner / Operator	Contra Costa Water District (CCWD)
Wholesale Supplier	U.S. Bureau of Reclamation (Central Valley Project); Delta diversions
Service Area	City of Antioch
System Type	Integrated regional water supply system; surface water supply, treatment, transmission, and local distribution
Planning Basis	2020 Urban Water Management Plan demand projections based on historical use, adopted General Plan land use assumptions, population and employment growth, and conservation-adjusted demand
What It Supports Today	Existing residential, commercial, industrial, and refinery-related uses; incremental growth consistent with adopted forecasts
Explicit Surplus Capacity Identified?	No
How Capacity Is Managed	District-wide supply planning; conservation programs; operational use of Los Vaqueros Reservoir storage; short-term water transfers or purchases during drought
Primary Constraints	Multi-dry-year drought risk; CVP allocation variability; Delta water quality and regulatory constraints; climate change uncertainty
Upgrade Triggers	Demand exceeding UWMP assumptions; prolonged drought conditions; regulatory or operational supply limitations
Implications for PPAs	Higher-intensity or water-dependent industrial uses would require further evaluation and coordination with CCWD to confirm supply availability and identify potential operational or infrastructure measures
Level of Certainty	High for existing conditions and baseline growth; moderate under extended drought; speculative for intensified demand

INFRASTRUCTURE CAPACITY ANALYSIS AND PLANNING-LEVEL IMPLICATIONS

Sewer Infrastructure Summary: City of Antioch

Owner / Operator	Delta Diablo Sanitation District
Service Area	City of Antioch; City of Pittsburg; Bay Point
System Type	Regional wastewater collection and conveyance system; gravity sewers, pump stations, force mains
Planning Basis	Peak wet-weather flow conveyance; sanitary sewer overflow (SSO) prevention; 2025 Sewer System Management Plan
What It Supports Today	Existing residential, commercial, industrial, and refinery-related wastewater flows consistent with historical development
Explicit Surplus Capacity Identified?	No
How Capacity Is Managed	Monitoring and hydraulic evaluation; inflow and infiltration control; condition assessment; System Evaluation and Capacity Assurance Plan (SECAP); Capital Improvement Program (CIP)
Upgrade Triggers	Identified hydraulic deficiencies; increased SSO risk; failure to meet adopted design or performance criteria
Implications for PPAs	Additional industrial intensity or high-strength discharges would likely require site- or sub-basin-level evaluation and potential collection or conveyance system upgrades
Level of Certainty	High for existing conditions; speculative for future industrial intensification

INFRASTRUCTURE CAPACITY ANALYSIS AND PLANNING-LEVEL IMPLICATIONS

Power Infrastructure Summary: City of Antioch

Service Area	City of Antioch
System Type	Regional transmission system; local substations and distribution feeders
Planning Basis	PG&E systemwide reliability and safety planning; project-driven service requests
What It Supports Today	Existing residential, commercial, industrial, and refinery-related loads
Explicit Surplus Capacity Identified?	No
How Capacity Is Managed	Project-driven service requests; feeder- and substation-level evaluation
Primary Constraints	Location-specific feeder and substation capacity; safety and reliability requirements
Upgrade Triggers	New or intensified electrical demand
Planning-Level Implications	Energy-intensive or specialized uses may require early coordination with PG&E and localized upgrades
Level of Certainty	Adequate for existing uses; project-specific for future demand

Storm Drainage Infrastructure Summary: City of Antioch

Owner / Operator	City of Antioch; Contra Costa County Flood Control and Water Conservation District
Service Area	City of Antioch
System Type	Storm drains, culverts, channels, detention facilities, and outfalls
Planning Basis	Design storm criteria and regulatory standards applicable at time of construction
What It Supports Today	Runoff from existing development patterns and impervious surfaces
Explicit Surplus Capacity Identified?	No
How Capacity Is Managed	Incremental system improvements; project-level drainage review and hydrologic analysis
Primary Constraints	Increased impervious surface area; downstream conveyance limitations; flood control and water quality regulations
Upgrade Triggers	Development that increases runoff volume or alters drainage timing
Implications for PPAs	Industrial development would likely require site-specific drainage studies and localized system improvements
Level of Certainty	High for existing conditions; speculative for future intensification

INFRASTRUCTURE CAPACITY ANALYSIS AND PLANNING-LEVEL IMPLICATIONS

Access Roads and Transportation Infrastructure Summary: City of Antioch

Owner / Operator	City of Antioch; Contra Costa County; California Department of Transportation (Caltrans)
Service Area	City of Antioch
System Type	Local streets, collectors, arterials, regional highways, and freight corridors
Planning Basis	Existing roadway design standards, historical traffic patterns, and regional transportation planning
What It Supports Today	Current traffic volumes; employee access; industrial and freight movement associated with existing uses
Explicit Surplus Capacity Identified?	No
How Capacity Is Managed	Incremental roadway improvements; project-level traffic impact analysis
Primary Constraints	Roadway geometry; pavement condition; intersection performance; truck turning and safety constraints
Upgrade Triggers	Increased traffic, freight activity, or employee trips generated by new development
Implications for PPAs	Higher-intensity industrial uses may require roadway, intersections, or access improvements
Level of Certainty	High for existing conditions; speculative for future intensified use

Communications Infrastructure Summary: City of Antioch

Owner / Operator	Multiple private telecommunications providers
Service Area	City of Antioch
System Type	Wireline, fiber-optic, and wireless communications networks
Planning Basis	Market-driven provider investment; franchise agreements and easements
What It Supports Today	Residential, commercial, and standard business communications needs
Explicit Surplus Capacity Identified?	No
How Capacity Is Managed	Provider-specific network planning and service extensions
Primary Constraints	Uneven fiber availability; proximity to backbone infrastructure; provider investment priorities
Upgrade Triggers	Projects with specialized, high-bandwidth, or redundancy requirements
Implications for PPAs	Industrial users may require direct coordination with providers and targeted network upgrades
Level of Certainty	High for existing conditions; speculative for specialized or high-capacity demand

OAKLEY EMPLOYMENT AREA

OVERVIEW

The Oakley Employment Area Priority Production Area (PPA) encompasses approximately 758 acres located in the northwest portion of the City of Oakley. The PPA lies immediately adjacent to the Northern Waterfront Industrial Corridor in the City of Antioch, approximately one-half mile north of State Route 4 (SR 4), and is bisected by the Burlington Northern Santa Fe (BNSF) railway. This location situates the Oakley Employment Area within a broader East County industrial and employment corridor defined by regional transportation infrastructure, rail access, and proximity to Delta-adjacent industrial activity.

The City of Oakley is a relatively young municipality in eastern Contra Costa County, having incorporated in 1999. Oakley functions as part of the East County growth corridor that includes Antioch, Pittsburg, Brentwood, and adjacent unincorporated communities. The City's location along the southern edge of the San Joaquin River Delta has strongly influenced its land use patterns, infrastructure systems, environmental constraints, and long-term development capacity.

Historically rooted in agriculture, Oakley continues to reflect its agrarian heritage through remaining orchards, vineyards, and Delta-adjacent open spaces, even as suburban residential neighborhoods now occupy much of the developed area. Employment-generating uses within the City are primarily concentrated in the northwest portion of Oakley, corresponding closely with the Oakley Employment Area PPA. These uses include light industrial, business park, and logistics-oriented development located near regional transportation corridors and rail infrastructure.

Oakley's General Plan, updated through a Focused General Plan Update adopted in 2022, establishes a planning horizon through 2040 and emphasizes managing growth while preserving community character, environmental resources, and infrastructure capacity. The Plan anticipates continued population and employment growth but conditions development on the availability and expansion of infrastructure systems, including transportation, water supply, wastewater collection, storm drainage, and flood protection facilities. Infrastructure planning is structured to support adopted land use assumptions rather than speculative or unplanned industrial intensification.

Oakley's Delta-adjacent location introduces notable planning constraints, including flood risk, levee integrity concerns, and environmental sensitivity. These factors, combined with regional growth pressures, frame the City's long-term infrastructure planning challenges and opportunities. Within this context, the Oakley Employment Area PPA should be understood as a designated employment district with strong regional connectivity and rail access, where infrastructure systems have evolved to support existing and incremental development consistent with adopted plans, and where intensified industrial activity would require additional evaluation and coordinated infrastructure investment.

WATER SUPPLY

Potable water service within the City of Oakley, including the Oakley Employment Area PPA, is provided by the Diablo Water District (DWD), which owns, operates, and maintains the water supply, treatment, and distribution system serving Oakley and surrounding areas. DWD's primary source of supply is treated

surface water purchased from the Contra Costa Water District (CCWD) under a Central Valley Project Municipal and Industrial water contract, with treatment provided at the jointly owned Randall-Bold Water Treatment Plant. Local groundwater wells are used conjunctively to provide operational flexibility, peaking capacity, and drought reliability, but are not relied upon as a standalone or unlimited supply source.

Based on adopted water planning documents, DWD's water supply portfolio is planned to reliably meet existing demands and forecast growth within the City of Oakley under normal and single-dry-year conditions. Demand projections reflect historical water use patterns, adopted General Plan land use assumptions, population growth forecasts, and conservation-adjusted per-capita demand factors. Planning assumptions do not identify surplus or unallocated water supply capacity and do not assume the introduction of new high-intensity or water-dependent industrial uses beyond existing land use patterns.

During extended multi-dry-year drought conditions, reductions in surface water availability associated with CVP and Delta conditions are anticipated. DWD's planning framework identifies response measures, including conservation programs, increased reliance on supplemental groundwater, operational adjustments, and coordination with CCWD to maintain service reliability. Under existing conditions, water service is considered adequate to support current development within the Oakley Employment Area PPA, while development that would substantially increase water demand beyond baseline assumptions would require additional evaluation, coordination with DWD, and potential operational, contractual, or infrastructure adjustments.

SANITARY SEWER

Sanitary sewer service for the City of Oakley, including the Oakley Employment Area PPA, is provided by the Ironhorse Sanitary District (IHSD), which owns, operates, and maintains the wastewater collection, conveyance, and treatment facilities serving Oakley and adjacent areas. Sewer service is managed as a stand-alone system and is subject to State regulatory requirements governing system performance and sanitary sewer overflow prevention.

The sanitary sewer system is planned and operated to reliably convey peak wet-weather flows associated with existing development patterns. Planning documents do not identify surplus or unallocated conveyance or treatment capacity for new or intensified development. System capacity is managed through monitoring, hydraulic evaluation, inflow and infiltration control, and implementation of capital improvements when deficiencies or elevated overflow risk are identified. Under existing conditions, sanitary sewer service within the Oakley Employment Area PPA is considered adequate to support current development, while development that would substantially increase wastewater flows beyond baseline assumptions would require further evaluation by IHSD and could trigger localized or system-wide infrastructure improvements.

STORM DRAINAGE

Storm drainage infrastructure within the City of Oakley, including the Oakley Employment Area PPA, is owned and maintained by the City of Oakley and the Contra Costa County Flood Control and Water Conservation District. Facilities include storm drains, culverts, channels, and associated conveyance and

outfall structures designed to manage runoff generated by existing development patterns in accordance with applicable design standards.

Stormwater systems have been constructed incrementally and are not pre-sized to accommodate unknown future intensification. No surplus drainage capacity is identified in planning documents. Under existing conditions, storm drainage infrastructure is considered adequate to support current development within the Oakley Employment Area PPA. Projects that increase impervious surface area or alter drainage characteristics would require project-level hydrologic and hydraulic analysis and may necessitate on-site detention, conveyance improvements, or downstream system modifications.

ACCESS ROADS AND TRANSPORTATION

Roadway and transportation infrastructure serving the City of Oakley and the Oakley Employment Area PPA is owned and maintained by the City of Oakley, Contra Costa County, and the California Department of Transportation (Caltrans). The roadway network includes local streets, collectors, arterials, and regional connections supporting residential, commercial, and employment uses, with direct access to SR 4 and rail infrastructure providing regional connectivity.

Transportation infrastructure has developed incrementally to support existing land use patterns and traffic volumes. While the roadway network is adequate for current conditions, not all facilities are designed to accommodate increased levels of heavy truck traffic or intensified freight activity without modification. Development within the Oakley Employment Area PPA that generates substantial traffic or freight movement would require site-specific transportation analysis and could necessitate roadway, intersection, or access improvements implemented through project-level review.

COMMUNICATIONS

Telecommunications services within the City of Oakley, including the Oakley Employment Area PPA, are provided by multiple private wireline, fiber, and wireless carriers. Communications infrastructure is installed in public rights-of-way and on private property pursuant to franchise agreements and easements and is developed in response to market demand and provider investment decisions.

Existing communications infrastructure generally supports residential, commercial, and standard business telecommunications needs, though service availability and capacity may vary by location. Development with specialized, high-capacity, or mission-critical connectivity requirements would require coordination with service providers and potential network extensions or upgrades evaluated on a project-specific basis.

SUMMARY TABLES

Water Infrastructure Summary: City of Oakley

Owner / Operator	Diablo Water District (DWD)
Service Area	City of Oakley
System Type	Surface water supply (CVP via CCWD); local treatment and distribution system; supplemental groundwater
Planning Basis	2020 Urban Water Management Plan
What It Supports Today	Existing residential and commercial uses
Explicit Surplus Capacity Identified?	No
How Capacity Is Managed	Conservation programs; conjunctive use of surface water and groundwater; operational planning
Primary Constraints	Drought risk; Delta water quality conditions; CVP allocation limitations
Upgrade Triggers	Demand exceeding UWMP assumptions
Level of Certainty	High for existing and baseline growth conditions

INFRASTRUCTURE CAPACITY ANALYSIS AND PLANNING-LEVEL IMPLICATIONS

Sanitary Sewer Infrastructure Summary: City of Oakley

Owner / Operator	Ironhorse Sanitary District
Service Area	City of Oakley
System Type	Gravity sewers, pump stations, force mains, and treatment facilities
Planning Basis	2025 Sewer System Management Plan
What It Supports Today	Existing residential and commercial wastewater flows
Explicit Surplus Capacity Identified?	No
How Capacity Is Managed	Monitoring, inflow and infiltration control, capital improvement programming
Primary Constraints	Wet-weather peak flows; aging infrastructure
Upgrade Triggers	Identified deficiencies or elevated sanitary sewer overflow risk
Level of Certainty	High for existing conditions

Power Infrastructure Summary: City of Oakley

Provider	Pacific Gas and Electric Company (PG&E)
Service Area	City of Oakley
System Type	Regional transmission system; local substations and distribution feeders
Planning Basis	PG&E systemwide reliability and safety planning; project-driven service requests
What It Supports Today	Existing residential, commercial, and light industrial loads
Explicit Surplus Capacity Identified?	No
How Capacity Is Managed	Project-driven service requests; feeder- and substation-level evaluation
Primary Constraints	Location-specific feeder and substation capacity; safety and reliability requirements
Upgrade Triggers	New or intensified electrical demand
Planning-Level Implications	Energy-intensive or specialized uses may require early coordination with PG&E and localized upgrades
Level of Certainty	Adequate for existing uses; project-specific for future demand

INFRASTRUCTURE CAPACITY ANALYSIS AND PLANNING-LEVEL IMPLICATIONS

Storm Drainage Infrastructure Summary: City of Oakley

Owner / Operator	City of Oakley; Contra Costa County Flood Control and Water Conservation District
Service Area	City of Oakley
System Type	Storm drains, culverts, channels, and outfall facilities
Planning Basis	Existing development patterns; adopted design standards
What It Supports Today	Current impervious surfaces and runoff conditions
Explicit Surplus Capacity Identified?	No
How Capacity Is Managed	Incremental system improvements tied to development
Primary Constraints	Increased imperviousness; downstream conveyance limitations
Upgrade Triggers	Project-level hydrologic and hydraulic analysis
Level of Certainty	High for existing conditions

Access Roads and Transportation Infrastructure Summary: City of Oakley

Owner / Operator	City of Oakley; Contra Costa County; Caltrans
Service Area	City of Oakley
System Type	Local streets, collectors, arterials, and regional highway connections
Planning Basis	Existing land use patterns and traffic volumes
What It Supports Today	Current vehicular traffic and access needs
Explicit Surplus Capacity Identified?	No
How Capacity Is Managed	Project-level transportation review
Primary Constraints	Heavy truck activity; roadway geometry
Upgrade Triggers	Increased traffic or freight demand
Level of Certainty	High for existing conditions; project-specific for intensification

Communications Infrastructure Summary: City of Oakley

Owner / Operator	Multiple private telecommunications carriers
Service Area	City of Oakley
System Type	Wireline, fiber, and wireless communications infrastructure
Planning Basis	Provider investment decisions and market demand
What It Supports Today	Standard residential and business communications needs
Explicit Surplus Capacity Identified?	Not applicable
How Capacity Is Managed	Carrier-specific network planning
Primary Constraints	Location-specific availability; proximity to backbone facilities
Upgrade Triggers	Coordination with service providers for new or specialized demand
Level of Certainty	Variable by location