Attachment: Environmental Requirements for Data Center Development in San Jose

Purpose: Information for San Jose Councilmembers, Legislators, and Residents about the existing environmental regulations that govern data center development entitlement and construction.

Executive Summary

The development of a data center in San Jose is subject to a multi-faceted environmental review process, primarily governed by the California Environmental Quality Act (CEQA) and the city's strategic frameworks, including the **Envision San José 2040 General Plan, San Jose Municipal Code, and the 2025 CEQA Statute & Guidelines**. Any such project must demonstrate comprehensive mitigation of its significant resource consumption, particularly in water and energy.

1. Requirements for Water Management and Recycled Water Usage

The City of San José is committed to fiscally and environmentally sustainable water management. A data center development, especially if it qualifies as a "water-demand project" (e.g., large commercial or industrial facility), must address its impact on water resources.

A. Protection Against Draining Groundwater Sources

1. **Water Supply Utilization:** Development must utilize water resources in a manner that does not deplete the supply of surface or groundwater (General Plan Section: ER-9.3).
2. **Groundwater Recharge Area Protection:** Developers must protect groundwater recharge areas, particularly creeks and riparian corridors (General Plan Section: ER-9.5).
3. **Stormwater Management:** Stormwater infiltration practices (e.g. rain gardens, bioretention areas, or special permeable pavement) must be used to protect groundwater quality (General Plan Section: MS-20.3).

B. Promotion of Recycled Water Usage Compared to Potable Water

1. **Recycled Water Mandate:** The General Plan aims to recycle or beneficially reuse 100% of the City’s wastewater supply by 2040 (General Plan Section: MS-19).
2. **Feasibility Requirement:** Projects must require the use of recycled water wherever feasible and cost-effective to serve existing and new development (General Plan Section: MS-19.4).

3. **Preferred Non-Potable Source:** Project design should promote the use of recycled water as the preferred source for non-potable water needs such as irrigation and **building cooling**. Cooling towers are a primary use of recycled water currently served by the South Bay Water Recycling (SBWR) system (General Plan Section: MS-3.2).
4. **Infrastructure Contribution:** New development is required to contribute to the cost-effective expansion of the recycled water system in proportion to the extent that it benefits from the system (General Plan Section: MS-19-1).
5. **Water-Demand Project Analysis:** If the data center meets specific thresholds (see table below), a water assessment is required to analyze the project's proposed water demand, supplies, and the reasonably foreseeable environmental impacts of supplying that water, ensuring availability during normal, dry, and multiple dry years (CEQA Guidelines § 15155).

   The CEQA Guidelines define a "water-demand project" through a list of thresholds for various development types (CEQA Guidelines § 15155). For a data center, which falls under the category of industrial or commercial facility, the relevant criteria are based on occupancy, land area, and floor space:

Development Type	Thresholds for "Water-Demand Project" specific to Data Centers
Industrial, Manufacturing, or Processing Plant, or Industrial Park	A project **occupying more than 40 acres of land**
	A project **having more than 650,000 square feet of floor area**
Commercial Office Building	A project encompassing **more than 250,000 square feet of floor space**
Equivalent Water Demand	Any project that would demand an amount of water equivalent to, or greater than, the amount of water required by a **500 dwelling unit project**.

If the proposed data center project meets or exceeds any one of these criteria, it is classified as a "water-demand project".

6. **Recycled Water System Reliability:** Unlike potable water, recycled water service from South Bay Water Recycling is interruptible and may be subject to outages due to maintenance, repairs, or operational constraints at the San José/Santa Clara Regional Wastewater Facility. While outages are uncommon, they can occasionally be prolonged. Customers are strongly encouraged to

mitigate potential impacts by incorporating onsite storage or securing backup water sources, such as a groundwater well.

2. Requirements for Renewable Energy Use

San Jose is committed to environmental leadership, aiming to receive **100% carbon-neutral electricity** by 2030 and maximizing local generation of clean, renewable energy to meet its own consumption needs.

A. Data Center Specific Energy Requirements and Clean Energy

1. **Distributed Power and Waste-Heat Reclamation:** Data centers must consider distributed power production to reduce energy losses from electricity transmission over long distances. They must also consider energy production methods such as waste-heat reclamation or carbon neutrality to reduce GHG emissions (General Plan Section: MS-19; MS-2.8).
2. **SJCE Compliance:** If they become a customer of **San José Clean Energy (SJCE)**, data centers will automatically receive 65% or 100% renewable energy. SJCE sources renewable and carbon-free power, including wind, solar, eligible hydroelectric and geothermal (San José Municipal Code § 26.20.010; 26.10.165).
3. **Green Building Practices:** The project must incorporate green building practices, specifically targeting reduced energy use through construction techniques and architectural design. This includes providing onsite renewable energy generation (e.g., a solar roof) (General Plan Section: MS-2.11).

3. Other Environmental Impacts Considered During Environmental Review (CEQA)

All projects carried out or approved by local agencies in California that may have a significant effect on the environment must undergo environmental review. The purpose of this review is to disclose detailed information about the project's likely effects and list ways to minimize significant effects and indicate alternatives (CEQA Guidelines § 15002, 15003, 15126). Data centers that require back-up generators of 50 MW to 99 MW must obtain a Small Power Plant Exemption from the California Energy Commission prior to any City approvals. For these types of projects, the California Energy Commission will perform environmental review under CEQA.

The "Environment" analyzed during the review process includes land, air, water, minerals, flora, fauna, noise, or objects of historic or aesthetic significance. Key environmental factors reviewed typically include:

A. Climate Change and Air Quality

1. **Greenhouse Gas (GHG) Emissions**: Projects must analyze their GHG emissions. Mitigation measures proposed to minimize significant environmental

effects must include measures to reduce the wasteful, inefficient, and unnecessary consumption of energy (CEQA Guidelines §§ 15064.4, 15126.2(b).

2. **Air Quality**: The environmental review considers cumulative air quality impacts from proposed development, consistent with the region's Clean Air Plan and State law (CEQA Guidelines §§ 15064(h), 15126.2(a), 15130, 15125(d).

B. Resources and Utilities

1. **Energy Impacts**: The EIR must discuss the project's potential energy impacts, emphasizing avoiding or reducing wasteful, inefficient, and unnecessary consumption of energy (CEQA Guidelines § 15126.2(b)).

2. **Utilities and Service Systems**: Evaluation includes whether the project would require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities, and whether that construction could cause significant environmental effects. It must also confirm that wastewater treatment providers have adequate capacity to serve the projected demand (CEQA Guidelines §§ 15126.2(a), 15131).

C. Geology, Soils, and Hazards

1. **Geology/Soils:** Projects must be reviewed for potential geologic and soil hazards, including seismic hazards (e.g., ground shaking, liquefaction, slope instability). The city requires conformance with the California Building Code for construction (CEQA Guidelines Appendix G, Geology and Soils; § 15064(e)).

2. **Hazardous Materials:** Review assesses the potential for a project to create a significant hazard through the routine transport, use, or disposal of hazardous materials, or through foreseeable upset/accident conditions resulting in the release of hazardous materials into the environment (CEQA Guidelines Appendix G, Hazards and Hazardous Materials; § 15126.2(a)).

3. **Environmental Contamination:** Projects require evaluation of the site's historical and present uses to determine if potential environmental contamination (soil, soil vapor, groundwater, indoor air) exists. Mitigation measures must be identified for identified human health and environmental hazards (CEQA Guidelines Appendix G, Hazards and Hazardous Materials; § 15126.4(a)).

In essence, a data center project in San Jose must demonstrate that its significant resource consumption (energy and water) is mitigated through sustainable design, efficiency, and reliance on carbon-neutral energy sources (like SJCE) and recycled water infrastructure, all while ensuring compliance with stringent CEQA standards across numerous environmental disciplines.