

## Key Components

**Silicon Valley Advanced Water Purification Center Expansion:** The SVAWPC Expansion Project is intended to produce between 16 and 32 MGD of purified water that is suitable for indirect potable reuse (IPR) applications. According to the Master Plan, approximately 5 MGD of the Project capacity will be supplied to the Mid-Basin Injection Well Site in the City of Santa Clara. The remaining flows will be used for groundwater recharge at the existing Los Gatos Recharge Ponds. The District is in the process of performing groundwater studies to confirm feasibility and/or capacity of the Mid-Basin Injection Wells, evaluate potential impacts of the proposed IPR projects on the groundwater basins, as well as modeling IPR operations under a range of operations scenarios such as wet, average and dry years. The results of these studies will help validate the design capacity for the proposed SVAWPC Expansion Project.

**Ford Ponds IPR Project:** The Ford Ponds IPR project consists of the construction and operation of a 4,200 AFY groundwater recharge project, with a proposed satellite advanced water purification facility (AWPF), utilization of the District's existing Ford Recharge site, and future expansion to multiple additional recharge ponds. The potential locations for the AWPF are south of the existing Coyote Recharge Ponds near the Metcalf Energy Center.

**Mid-Basin Injection Wells IPR Project:** The Mid-Basin Injection Wells IPR project, located southwest from the intersection of highways 101 and 880, consists of recharging up to 5,600 AFY of purified water using injection wells constructed along a portion of the conveyance pipeline that would be required for the Los Gatos Recharge Ponds IPR project, the Westside Injection Wells IPR project, and/or the Central Pipeline DPR project (described below). The City of Santa Clara pumps groundwater in its jurisdiction west of the proposed purified recycled water pipeline alignment. Groundwater effects in the project area would be assessed with groundwater modeling to determine how purified water would be effectively transported underground.

**Los Gatos Recharge Ponds IPR Project:** The Los Gatos Recharge Ponds IPR project consists of using the following recharge ponds for indirect potable reuse: McGlincey, Budd Avenue, Sunnyoaks, Camden, Oka, and Page, which have a combined recharge capacity of 20,200 AFY. In the initial stage of project sizing, operational modeling would be conducted to determine the capacity of these recharge ponds to accept purified water for recharge in wet, average and dry years. Approximately 15 miles of pipeline would be installed from the Zanker Road location to the recharge ponds. A decision to provide flexibility for inclusion of Westside Injection Well IPR/Central Pipeline DPR projects would dictate the design conveyance capacity of the different sections of the 15-mile pipeline.

**Sunnyvale IPR Project:** The MBR treatment technology would be the next phase of a partnership between Sunnyvale and the District on potable reuse options both within the city limits and to the south and west outside the city limits. The project concept is to purify water at Sunnyvale's WPCP and deliver it for groundwater recharge (IPR) and possibly, ultimately for DPR. Up to 10,000 AFY of purified water could be delivered to the Westside Injection Wells via an extension of the Wolfe Road Pipeline or a new pipeline from Sunnyvale's WPCP. This supply volume could either be additive to the supply from the expanded SVAWPC, or it could be a substitute for 10,000 AFY from the expanded SVAWPC. If the District elects to proceed with investment in a Sunnyvale purification plant, the scale of the SVAWPC expansion could be reduced to approximately 21,000 AFY and 10,000 AFY of further expanded capability could be set aside for a future phase of development at the SVAWPC site. Implementation of the Sunnyvale IPR project would cost an estimated \$210 million.

**Purified water production at the Palo Alto Regional Water Quality Control Plant (RWQCP):** The Advanced Water Purification System Feasibility Study (Feasibility Study) determined how to improve recycled water quality from the Regional Water Quality Control Plant (RWQCP) in Palo Alto. Following the completion of the Feasibility Study in April 2017, District and Palo Alto staff authorized the consultant to complete two optional tasks: 1) A Preliminary Design Report for a 1 to 2 million gallons per day (MGD) Advanced Water Purification System (AWPS); and 2) A White Paper on utilizing a parcel of land adjacent to the RWQCP for the construction of a 6 to 10 MGD AWPS. On September 27, 2017, the consultant submitted the draft Preliminary Design Report and staff is currently reviewing this submittal. The consultant is currently addressing comments provided by both District and Palo Alto staff and is on schedule to finalize the White Paper in late October 2017.

**Westside Injection Wells IPR or Central Pipeline DPR Project:** The purpose of the Westside Injection Wells IPR project or the Central Pipeline DPR project is to expand the IPR program to the Westside injection wells (located northwest from the intersection of highways 17 and 85) and/or, in the future, to connect directly to the District's Central Pipeline for DPR. If the DPR option is selected, it would provide the District with more flexibility to determine the optimum split between the indirect and direct potable reuse projects. The proposed capacity of this phase is 5,000 AFY. Another option, if shown to be cost-effective, is for the Westside injection wells to be supplied by the Sunnyvale IPR project. This would require an extension of the Wolfe Road pipeline (or a new pipeline from Sunnyvale's WPCP as described below) to the Westside Injection Wells.