

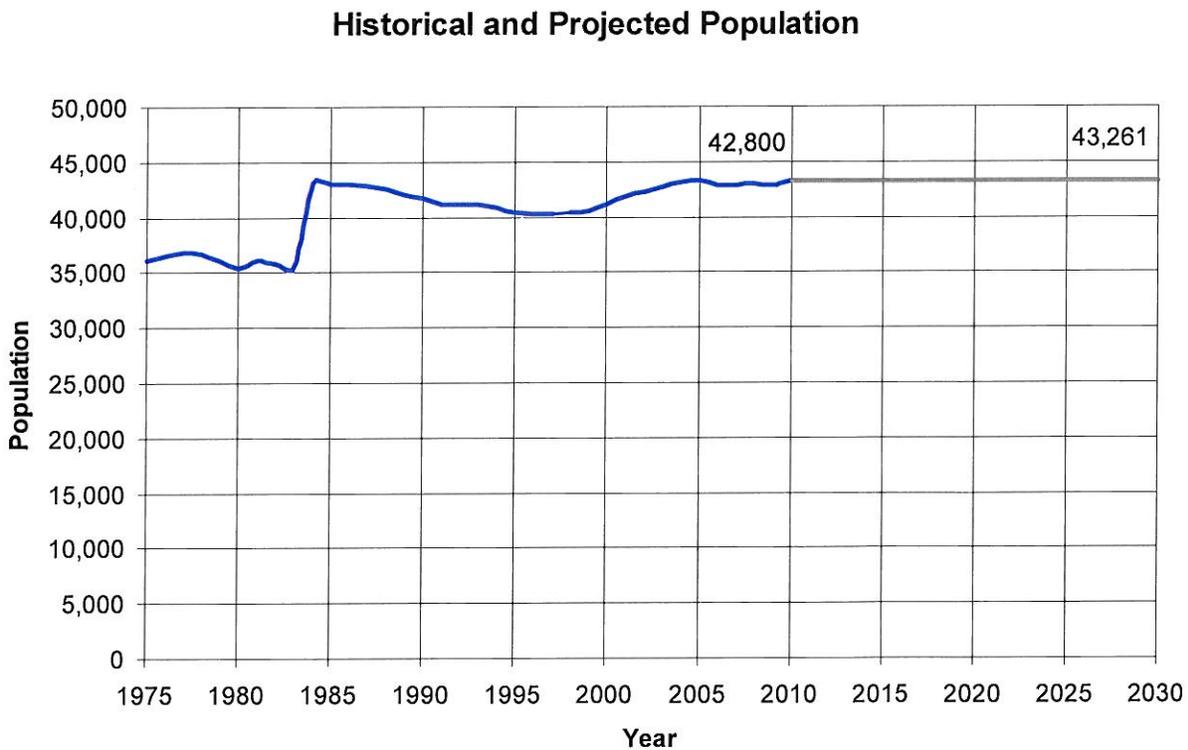


6.0 Future Flow Predictions

6.1 General

Since The City of Rancho Palos Verdes has little undevelopable space left, the future flow predictions will not increase significantly compared to the current flow. Based on the US Census data, the population is predicted to increase to 43,261 in 2030 as compared to 42,800 in 2009. This represents an increase of approximately 1.07%. The historical and future populations are shown in Figure 6-1

Figure 6-1 Historical and Projected Population





6.2 Model Predictions

To account for this slight population increase, the hydraulic model was run with a factor of safety of 1.0107, representing the 1.07% increase in population. It is noted that this value is well below the factor of safety of 2.5 applied to the model. For the future flow condition, the same criteria was used as with the existing conditions, of d/D equal to 0.75.

The model shows that 16 pipe segments out of 3,812 or 0.42% will be over capacity to accommodate the future population predictions. These pipe segments are graphically shown in Figure 6-2 and are included as part of the recommended CIP projects discussed in Chapter 7.

6.3 Abalone Cove

Separate capacity analysis models on the collection system for Abalone Cove are not necessary. For the majority of this system, each residence is served by a single grinder pump and low pressure main connection. These are industry standard designs which reliably serve one to three homes. The receiving line is subject to periodic flows from each of the pumps connected to the system and it in turn feeds into a larger lift station serving both gravity and low pressure customers. The results of increasing the flow into the lift station are that the pump operates for longer period of times. This system was originally designed to handle XXX lots as described in the original design report.

(Holding spot for additional data as provided by City)



Figure 6-2 Future Capacity Restrictions

