by the pump. Based on the data shown in Table 4-14, implementation of the proposed project would result in pump operational noise levels which would exceed the City's nighttime noise level standard of 45 dB L_{eq} at residences located nearest to the Woodcreek West, Del Webb, and Hewlett Packard and Hayden Parkway well sites. This is considered a **potentially significant impact**. <u>Implementation of Mitigation Measure 4.3-3 (Reduce Well Pump [Operational] Noise Levels) would reduce impacts to **less than significant**.</u>

TABLE 4-14. PREDICTED WELL PUMP NOISE LEVELS AT NEAREST RESIDENCES

Well Name	Pumps Installed	Nearest Residences	Predicted Noise Levels	Increase in Noise Levels
Hayden Parkway	No	Home to north at approximately 100 ft.	56 dBA	~ + 4 dB
Westside Drive	No	Homes to west more than 600 ft.	<45 dBA	No Increase
Woodcreek West	No	Homes to north at approximately 100 ft.	56 dBA	~ + 3 dB
Del Webb	No	Homes to north at approximately 150 ft.	51 dBA	No Increase
Hewlett Packard	No	Homes to west at approximately 150 ft.	51 dBA	No Increase
Fiddyment Road	No	Homes more than 800 ft.	<45 dBA	No Increase

Modeled by j.c. brennan associates, 2009

Noise levels associated with the well pumps can be reduced using a full or partial enclosure. The enclosure can take the form of a block house or surrounding barrier designed to accommodate a pump motor 5-feet in height, and elevated off the ground by 18 inches.

A full enclosure with a roof would sufficiently reduce noise levels, however, ventilation openings should be located on the side of the building opposite the nearest residences. If a traditional barrier is constructed around the well site, it would need to be a minimum of 8-feet in height.

A variety of suitable sound attenuation options would be available. In order to ensure that sound levels are adequately mitigated, a qualified acoustical expert shall be consulted regarding placement, orientation, size, and density of acoustical barriers.

The long term operation of the wells and pump stations will comply with the City of Roseville Noise Ordinance because pump stations will be soundproofed, using a variety of methods, to meet the City's exterior noise level standards. This impact would be mitigated to less than significant.

IMPACT 4.3-4	GROUND-BORNE NOISE AND VIBRATION LEVELS AT SENSITIVE RECEPTORS	
Applicable Policies and Regulations	City of Roseville Noise Ordinance Section 9.24.030	
Significance with Policies and Regulations	Less than Significant	
Mitigation Measures:	None	