Dam Modification	Estimated Cost	Pros	Cons
ALT 1 Replace existing radial gate with modern radial gate	• $2.5M+ for new gate • $150K+/year O&M	• Status quo, least impact to community	• Staff safety concerns related to operation of gate and debris removal • Highest overtime and O&M costs due to operation of gate during storm events • Debris collects against piers
ALT 2 Discontinue operation of gate during storm events	• $100K+/year O&M	• Few or no additional costs compared to Alternative 1	• Staff safety concerns related to debris removal • Highest upstream water surfaces compared to all other alternatives • Greatest number of homes impacted across all storms compared to other alternatives • Potential for community requests to resume/continue operation of gate during storm events • Gate will still require O&M • Debris collects against piers
ALT 3A/3B Remove radial gate & replace with fixed-crest ogee section 3A: Remove catwalk & catwalk piers 3B: Remove catwalk, catwalk Piers, and thrust piers	• ≤ $3.5M (one time), depending on number of homes purchased and ability to secure grants • $25K/year O&M	• Eliminates staff safety and overtime concerns related to operation of gate and debris removal • (3B) Lowest upstream water surfaces during the 50-year and 100-year storms compared to all other alternatives • Fewest number of homes impacted during the 50-year and 100-year storms compared to other alternatives • Lowest O&M costs compared to all other alternatives	• County would need to purchase 4-6 homes w/variety of funds; some homeowners may not want to sell • Requires installation warning buoys before dam due to removal of piers • Some community resistance to changes in infrastructure and operations • Can't lower lake level; may require construction of separate outlet to lower lake
ALT 4A Replace radial gate with weir wall (crest el. 1' below ogee crest)	• $750K (without home purchases) • $75K+/year O&M	• Lowest initial (non-O&M) costs compared to Alternatives 1, 3A, and 3B	• Staff safety concerns related to debris removal • Higher upstream water surfaces compared to Alternatives 1, 3A, and 3B. • May require purchase of homes; some homeowners may not want to sell • Can't lower lake level; may require construction of separate outlet works to lower lake

Lake Jackson Dam Modification Matrix February 2020 – DRAFT