



LTEMP Science Plan

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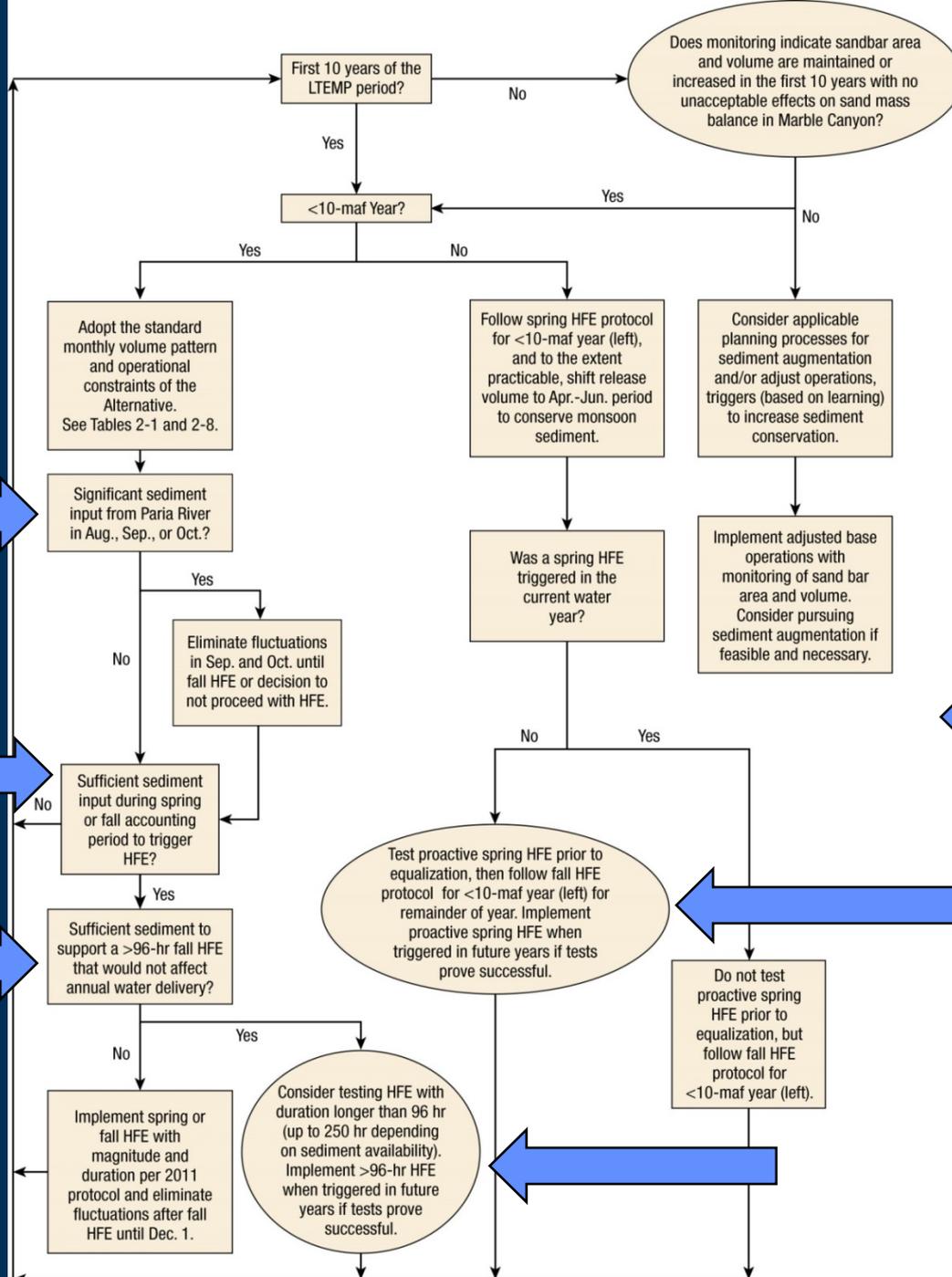
Grand Canyon Monitoring and Research Center

LTEMP Science Plan

- **Critical components of the science plan**
 - Includes monitoring and research of key resources
 - Adaptive and responsive to science needs and learning over 20-year span of LTEMP
- **Reconcile science plan with existing GCDAMP documents**
 - GCRMC triennial workplan
 - Core monitoring plan

Alternative D: Sediment-Related Adjustments to Base Operations

- No fluctuations in Sept, Oct, and Nov after HFE sediment trigger reached
- No fluctuation after HFES in month of HFE
- Proactive spring HFES prior to equalization releases
- Longer duration HFES – up to 250 hours

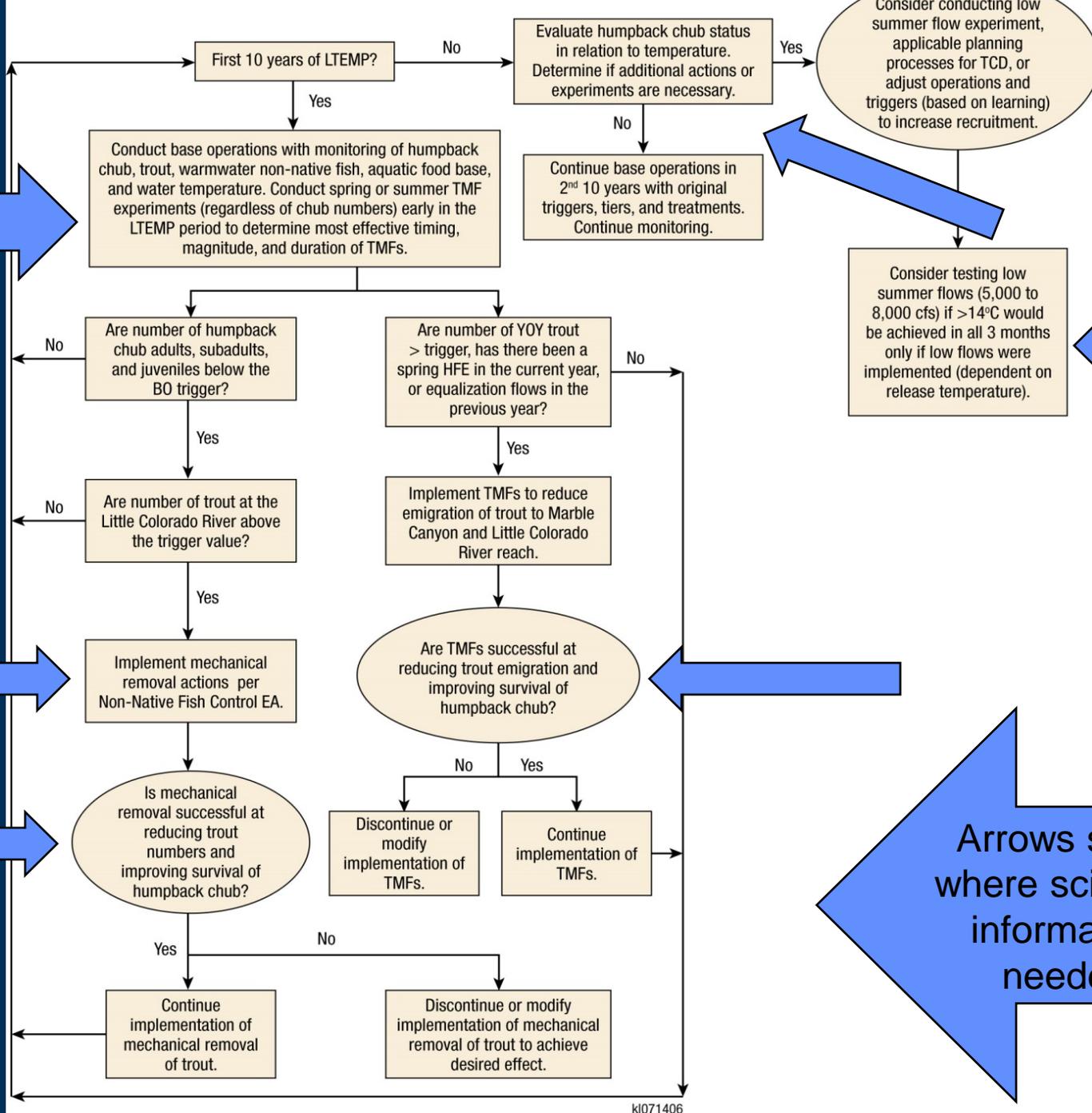


Arrows show where scientific information needed



Alternative D: Aquatic Resource-Related Adjustments to Operations and Non-Flow Actions

- Low summer flows
- Trout control actions
 - Trout management flows (TMF)
 - Mechanical removal from the LCR reach
- Weekend low flows – “bug flows”
- Non-flow vegetation restoration



Arrows show where scientific information needed



Alternative D: Other Resources

- **Vegetation**
 - nonnative plant removal
 - revegetation with native species
 - mitigation at specific and appropriate cultural sites
- **Cultural Resources**
 - Preservation of historic properties through a program of research, monitoring, and mitigation
 - archeological and ethnographic sites
 - *National Register* historic properties