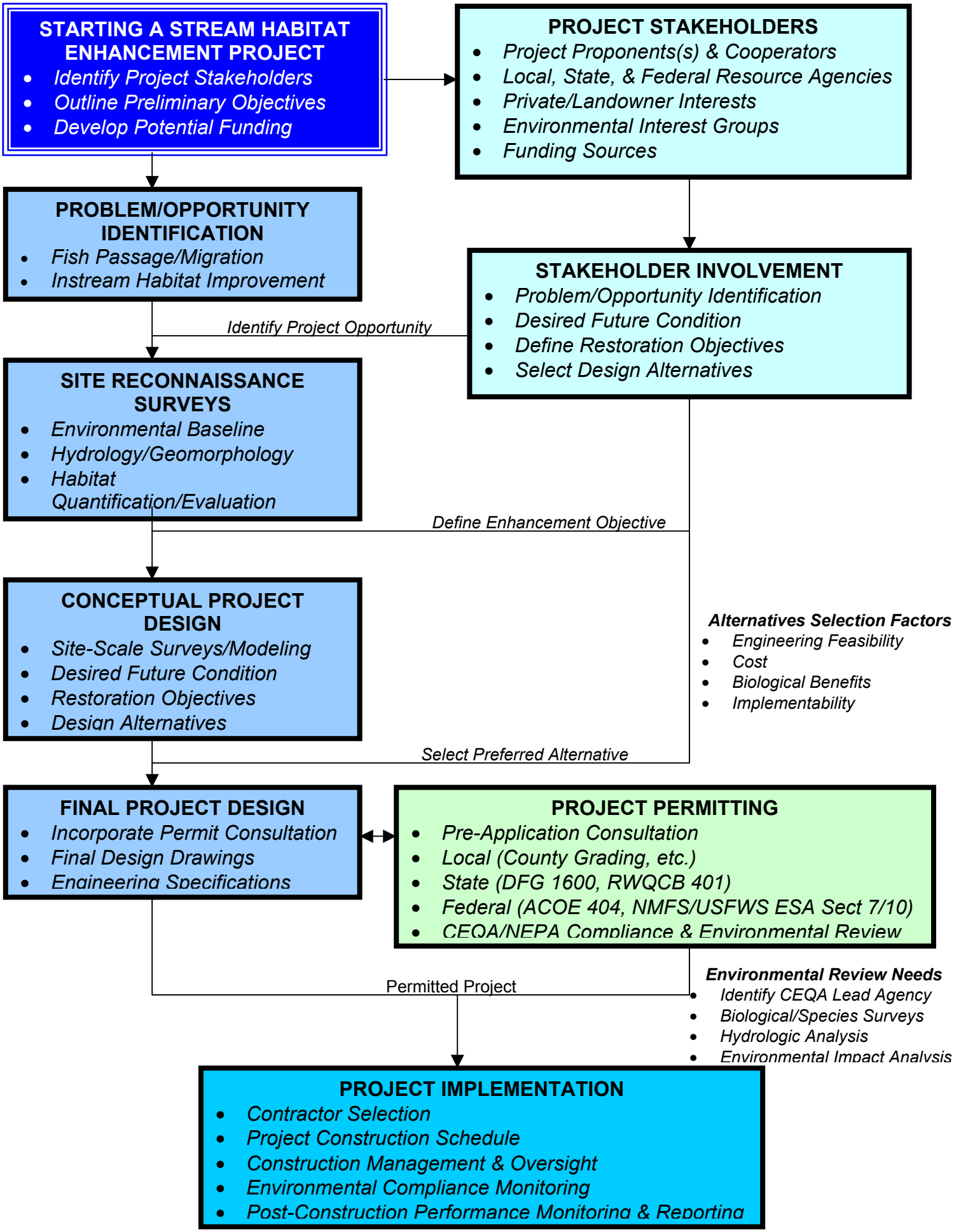
STARTING A STREAM HABITAT ENHANCEMENT PROJECT
Identify Project Stakeholders
Outline Preliminary Objectives
Develop Potential Funding
PROJECT STAKEHOLDERS
Project Proponents(s) & Cooperators
Local, State, & Federal Resource Agencies
Private/Landowner Interests
Environmental Interest Groups
Funding Sources
PROBLEM/OPPORTUNITY IDENTIFICATION
Fish Passage/Migration
Instream Habitat Improvement
STAKEHOLDER INVOLVEMENT
Problem/Opportunity Identification
Desired Future Condition
Define Restoration Objectives
Select Design Alternatives
Identify Project Opportunity
SITE RECONNAISSANCE SURVEYS
Environmental Baseline
Hydrology/Geomorphology
Habitat Quantification/Evaluation
Define Enhancement Objective
CONCEPTUAL PROJECT DESIGN
Site-Scale Surveys/Modeling
Desired Future Condition
Restoration Objectives
Design Alternatives
Alternatives Selection Factors
Engineering Feasibility
Cost
Biological Benefits
Implementability
Select Preferred Alternative
FINAL PROJECT DESIGN
Incorporate Permit Consultation
Final Design Drawings
Engineering Specifications
PROJECT PERMITTING
Pre-Application Consultation
Local (County Grading, etc.)
State (DFG 1600, RWQCB 401)
Federal (ACOE 404, NMFS/USFWS ESA Sect 7/10)
CEQA/NEPA Compliance & Environmental Review
Permitted Project
Environmental Review Needs
Identify CEQA Lead Agency
Biological/Species Surveys
Hydrologic Analysis
Environmental Impact Analysis
PROJECT IMPLEMENTATION
Contractor Selection
Project Construction Schedule
Construction Management & Oversight
Environmental Compliance Monitoring
Post-Construction Performance Monitoring & Reporting