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Flood Risk Management Cosgrove Creek Section 205 Planning Basics

Slide 2 WHO we are/WHY we’re here

We are a Project Delivery Team (PDT) made up of engineers and scientists from the US Army Corps of Engineers. We are teamed with our local cost-sharing sponsor, Calaveras County. This combined team will prepare a Detailed Project Report (Feasibility report level) to resolve long term problems with flood damages caused by flash flooding along Cosgrove Creek This combined team will prepare a Detailed Project Report (Feasibility report level) to resolve long term problems with flood damages caused by flash flooding along Cosgrove Creek Slide 3 WHO we are/WHY were here This study is a follow up to an approved Recon Report prepared in 2005 which demonstrated Federal interest in a comprehensive solution This study is a follow up to an approved Recon Report prepared in 2005 which demonstrated Federal interest in a comprehensive solution We will be looking at more alternative features and plans than previously considered in the recon report We will be looking at more alternative features and plans than previously considered in the recon report This study will go well beyond any maintenance clearing of the creek This study will go well beyond any maintenance clearing of the creek Slide 4 Meeting Purpose Explain Federal participation: Explain Federal participation: Section 205 Project Authority Section 205 Project Authority NEPA process (CEQA) NEPA process (CEQA) Federal Policy and Planning Parameters for study (Feasibility) document Federal Policy and Planning Parameters for study (Feasibility) document Listen to public comments and questions Listen to public comments and questions Address concerns when possible Address concerns when possible Slide 5 AUTHORITY Continuing Authorities Program - Section 205 of the Flood Control Act of 1948 Continuing Authorities Program - Section 205 of the Flood Control Act of 1948 Allows Secretary of the Army (via Chief Engineers) to plan, design, construct certain water resource projects w/o additional Congressional approval Allows Secretary of the Army (via Chief Engineers) to plan, design, construct certain water resource projects w/o additional Congressional approval Cost share is 65% Federal NTE $7M Cost share is 65% Federal NTE $7M National limit for CAP is $50M National limit for CAP is $50M Slide 6 BASIC REQUIREMENTS Sponsor (s) to provide 35% of project costs and any addl dollars above $7M Sponsor (s) to provide 35% of project costs and any addl dollars above $7M Prepare Detailed Project Report (Feasibility Study) that demonstrates project is economically justified. Benefits > Costs (i.e., B/C > 1.0 \*) Prepare Detailed Project Report (Feasibility Study) that demonstrates project is economically justified. Benefits > Costs (i.e., B/C > 1.0 \*) Re-affirm Federal Interest ( NED) Re-affirm Federal Interest ( NED) Comply with NEPA requirements Comply with NEPA requirements Slide 7 National Environmental Policy Act NEPA NEPA is a Federal law that requires Federal agencies to consider the environmental impacts of a proposed project that is a major Federal action and that may have a significant affect on the quality of the human environment NEPA is a Federal law that requires Federal agencies to consider the environmental impacts of a proposed project that is a major Federal action and that may have a significant affect on the quality of the human environment Slide 8 NEPA Goals Consider the environmental consequences of a Federal action before making a decision Consider the environmental consequences of a Federal action before making a decision Solicit and consider public views on the proposed action(s) Solicit and consider public views on the proposed action(s) Provide government agencies with common mechanics to coordinate overlapping jurisdictional responsibilities Provide government agencies with common mechanics to coordinate overlapping jurisdictional responsibilities Slide 9 NEPA definitions EA Environmental Assessment; brief, documents the sufficiency of the information used to determine environmental (including human) impacts of a proposed Federal action/project. EA Environmental Assessment; brief, documents the sufficiency of the information used to determine environmental (including human) impacts of a proposed Federal action/project. FONSI Finding of No Significant Impacts this is the official statement/result of the EA FONSI Finding of No Significant Impacts this is the official statement/result of the EA EIS Environmental Impact Statement takes longer to prepare as it is usually result of serious controversy EIS Environmental Impact Statement takes longer to prepare as it is usually result of serious controversy Mitigation actions taken to compensate for adverse environmental damages Mitigation actions taken to compensate for adverse environmental damages Slide 10 6-STEP PLANNING PROCESS ID PROBLEM and OPPORTUNITIES ID PROBLEM and OPPORTUNITIES Note EXISTING and FUTURE (w/o project) conditions Note EXISTING and FUTURE (w/o project) conditions FORMULATE ALTERNATIVE PLANS FORMULATE ALTERNATIVE PLANS EVALUATE alternative plans EVALUATE alternative plans COMPARE COMPARE SELECT SELECT Slide 11 COSGROVE CREEK STUDY PROBLEM: Incidence and level of damages caused by the existing periodic flooding of homes and businesses along lower third of Cosgrove Creek is increasing. Urbanization of the area is exacerbating the problem. The periodic flooding also causes streambank erosion resulting in excessive sedimentation downstream threatening the health of the existing riparian corridor. PROBLEM: Incidence and level of damages caused by the existing periodic flooding of homes and businesses along lower third of Cosgrove Creek is increasing. Urbanization of the area is exacerbating the problem. The periodic flooding also causes streambank erosion resulting in excessive sedimentation downstream threatening the health of the existing riparian corridor. Slide 12 STUDY PARAMETERS Document to meet all policy requirements and follow 6-step planning process. The GOAL for this project is to: Document to meet all policy requirements and follow 6-step planning process. The GOAL for this project is to: Reduce damages to both property owners and the natural system that are adversely impacted by the periodic flooding events along Cosgrove Creek. Reduce damages to both property owners and the natural system that are adversely impacted by the periodic flooding events along Cosgrove Creek. Slide 13 PROJECT OBJECTIVES Attenuate damaging peak flows Attenuate damaging peak flows Stabilize creek banks Stabilize creek banks Improve natural conditions that are favorable to wetlands and riparian habitat Improve natural conditions that are favorable to wetlands and riparian habitat Increase potential for recreational opportunities Increase potential for recreational opportunities Slide 14 PROJECT CONSTRAINTS Avoid adverse environmental impacts (to include cultural resources, unless these are considered minor and can be mitigated) Avoid adverse environmental impacts (to include cultural resources, unless these are considered minor and can be mitigated) No adverse impacts to existing levels of flood damage reduction within study area w/o appropriate compensation No adverse impacts to existing levels of flood damage reduction within study area w/o appropriate compensation No adverse impacts to Water Quality No adverse impacts to Water Quality Slide 15 Slide 16 Slide 17 POTENTIAL ALTERNATIVES No Action what would happen in the future if no Federal project is implemented No Action what would happen in the future if no Federal project is implemented Non-structural cleanout channels (perhaps with minor re-shaping as necessary) add some property relocations Non-structural cleanout channels (perhaps with minor re-shaping as necessary) add some property relocations Build the detention alternative plan as envisioned in the Recon Build the detention alternative plan as envisioned in the Recon Build the retention alternative plan as envisioned in the Recon Build the retention alternative plan as envisioned in the Recon Slide 18 POTENTIAL ALTERNATIVES Channelize Cosgrove Creek as needed (might be combination of earthen or concrete works; could be in just few problem areas) Channelize Cosgrove Creek as needed (might be combination of earthen or concrete works; could be in just few problem areas) Divert peak flows towards New Hogan Lake (likely at some point upstream of problem flooding area(s) Divert peak flows towards New Hogan Lake (likely at some point upstream of problem flooding area(s) Construct smaller retention/detention areas where there might be room and need along the creek alignment. Construct smaller retention/detention areas where there might be room and need along the creek alignment. Slide 19 POTENTIAL ALTERNATIVES Stabilize channel using: Stabilize channel using: Biotechnical measures such as fiber rolls, tree branch cuttings, log, rootwad, boulder and/or tree revetments (these provide stability to the streambed Biotechnical measures such as fiber rolls, tree branch cuttings, log, rootwad, boulder and/or tree revetments (these provide stability to the streambed Vertical grade controls (i.e. drop structures) Vertical grade controls (i.e. drop structures) Flood terraces help to increase channel stability while providing riparian habitat Flood terraces help to increase channel stability while providing riparian habitat \_\_\_\_\_\_\_\_\_\_\_(Public Input)\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_(Public Input)\_\_\_\_\_\_\_\_\_\_\_\_ Slide 20 ISSUES/CONCERNS Dynamic urbanization by developers is resulting in a piecemeal approach to flood reduction. Cumulative effects become difficult to assess. Dynamic urbanization by developers is resulting in a piecemeal approach to flood reduction. Cumulative effects become difficult to assess. Land use changes to urbanization is resulting in increased nutrients into the creek resulting in greater vegetation restricting water movement Land use changes to urbanization is resulting in increased nutrients into the creek resulting in greater vegetation restricting water movement Maintenance issues within creek exacerbated by potential Red-legged frog habitat Maintenance issues within creek exacerbated by potential Red-legged frog habitat \_\_\_\_\_\_\_\_(Public Input)\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_(Public Input)\_\_\_\_\_\_\_\_\_\_ Slide 21 WHATS NEXT? Capture public and interagency scoping input Capture public and interagency scoping input Prepare detailed project schedule (Corps requirement) Prepare detailed project schedule (Corps requirement) Procure environmental services needed to address ESA concerns (i.e., Red-legged frog, etc.) Procure environmental services needed to address ESA concerns (i.e., Red-legged frog, etc.) Develop preliminary suite of alternative plans Develop preliminary suite of alternative plans Post interim updates monthly on County website Post interim updates monthly on County website Next public meeting 6-9 months from now Next public meeting 6-9 months from now