the 11 transects are composited. Consequently, characteristics of the entire site are assessed instead of only riffles as specified in the CSBP. Quantitative characterization of substrate of the entire site using SWAMP would provide more robust data for determining effects of gravel enhancement downstream of Los Padres Reservoir as well as documenting amounts of fine sediment and particulate organic matter at the sites. In addition, one component of the recently drafted SWAMP stream algae procedure could be added to assess amounts of algae along site transects. For data compatibility with the SWAMP, a quality assurance project plan would need to be developed.

2. Establish at least one additional reference site, minimally affected by reservoirs and urbanization. Potential sites could include Cachagua Creek downstream of James Creek, and Pine Creek upstream of the confluence of the Carmel River. The Pine Creek site would represent a lower elevation reference site. Additional reference sites would provide more of a range of conditions (e.g. substrate characteristics) from which to compare sites that are affected by reservoirs, urbanization, and management activities such as water releases and gravel augmentation.

3. Conduct a special study to reduce or eliminate effects of variation in substrate composition on BMI assemblages upstream and downstream of the reservoir systems. This could be achieved with the deployment of substrate baskets, which would contain known amounts and proportions of substrate, typically mixtures of gravel and cobble. Substrate baskets could be deployed upstream and downstream of the reservoirs after peak flow in summer and processed in late fall. By evaluating the BMI assemblages that colonized the baskets, more insight could be made into reservoir effects by factoring out variation in substrate composition.

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8.0 ABBREVIATIONS/GLOSSARY

BMI Benthic macroinvertebrates: invertebrates that live in streambeds and are large enough to be detected with the naked eye (>0.5 mm).

CAMLnet California Aquatic Macroinvertebrate Laboratory Network: a network of professionals that reviews current taxonomic advancements, laboratory techniques for processing samples, and methods of laboratories to ensure quality control and recommend standards. CAMLnet was replaced by SAFIT.

CCAMP Coastal Confluence Monitoring and Assessment Program: program of the RWQCB for assessing water quality on a regional basis.

RWQCB Central Coast Regional Water Quality Control Board

CDFG California Department of Fish and Game

CRBP Carmel River Bioassessment Program

CRCA Carmel River at Cachagua – District bioassessment site

CRDD Carmel River at DeDampierre - District bioassessment site

CRLP Carmel River upstream of Los Padres Reservoir – District bioassessment site

CRRR Carmel River at Red Rock- District bioassessment site

CRRW Carmel River at Russell Wells - District bioassessment site