Biological Objectives: Definition of Terms October 21, 2010 Draft

Regulatory Scope Definitions

Stream – landscape features with defined beds and banks that have been formed by water and which under typical circumstances are maintained by the flow of water.

Wadeable stream – a stream that can be crossed safely by wading during an index period.

Perennial stream – a stream with the year-round presence of flowing surface water during a typical water year. Any stream that does not meet this definition is considered "non-perennial"

Technical Definitions

Stressor - any physical, chemical, or biological variable that can induce an adverse response in a biological community. Examples include eutrophication, flow alterations, competition/predation by invasive species, fine sediment inputs, pesticides, fire, flood, drought, etc.

Controllable stressors – are those that are likely to be regulated by CalEPA. Anthropogenic stressors that are not directly remedied by management actions, including population density in the catchment, channel modification for flood control, etc. are typically not considered "controllable".

Index Period – a window of time designated for collecting biological samples, usually established to minimize seasonal variability in biological data.

Reference Sites/Reference Condition (RC)- Reference sites are sections of streams that represent the desired state of stream condition for a region of interest. Data from reference reaches are used to characterize the range of biotic conditions expected to occur; this range defines the reference condition. Deviation from this range is used as evidence that test sites are impaired.

Historical Condition (HC) ~ stream condition at a specific point in time (e.g., pre-Columbian, pre-industrial, pre-intensive agriculture, etc.)

Minimally Disturbed Condition (MDC) ~ stream condition in the absence of "significant" human disturbance. Assumes all streams have some anthropogenic stresses, but in most cases will approach true RC

Least Disturbed Condition (LDC) ~ the best physical, chemical and biological conditions currently available within a specific region ("the best of what's left"). *This definition is sufficiently flexible to establish biological expectations even in highly altered systems*

Best Attainable Condition (BAC) ~ the expected ecological condition of least disturbed sites given use of best management practices for an extended period of time. *This definition is helpful for communicating the potential for improving ecological condition above the currently least disturbed conditions*