California Rapid Assessment Method for Wetlands (CRAM)

Stressor Checklist

- Anthropogenic perturbations within the wetland or in the surrounding landscape with negative impact on condition and function

Pressure-State-Response Model (PSR)

- Natural processes (disturbance) and human operations (stressors) put pressure on wetlands
- Pressure affects wetland state (condition)
- Degraded states trigger management responses to reduce pressure by adjusting stressors
Background

- Physical and biological processes connect wetlands to their environmental settings, thus help shape wetland conditions
- Land use practices influence these processes (Frisell et al. 1986, Roth et al. 1996, Scott et al. 2002)
- Wetland conditions can be affected by internal stressors as well, but are less abundant than landscape stressors

Stressor Checklist

- Four assumptions:
  - Stressor(s) can lead to deviation from best attainable condition
  - More stressors can cause a decline in condition
    - Linear, multiplicative, other non-linear model
  - Increase in intensity/proximity increases decline in condition
  - Continuous/chronic stress increases decline in condition

- Identify stressors within an AA or immediate vicinity that might account or low condition scores
- A single stressor might be the primary cause, but it is usually due to interactions among multiple stressors (USEPA 2002)
- Can be “present” or “significant negative effect”
Stressor Checklist

Important to record nature and degree of stressors for future module evaluation and development.

Stressor Checklist - Next Steps

- Overall stress on a wetland can be assessed as the number of evident stressors and their extent.
- A stressor index, along side the condition index will give better context to CRAM scores, and assist in determining what remediation/rehabilitation measures are warranted.
- USA-RAM developed a version for EPA's National Wetland Condition Assessment.

Thank You