California Rapid Assessment Method for Wetlands (CRAM) Stressor Checklist

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
 - Continuous/chronic stress increases decline in condition







Stressor Checklist

- 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"





Point Source (PS) discharges (POTW, other min-strumwater discharge) Non-point Source (Non-PS) discharges (solute countl, farm dissinge) Poor diversions in mantatual inflower. Donn (pracross, detection bases, setlarge basis)		effect on AA
Flow deverance in uncertical inflows		
Plow obstactions (rubrets, owned storage crossings)		_
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Dielged idet/shasel		
Engineered channel (opcap, someoed channel bank, bed) Dilackerses		
Distribution Geosphysius estructions		
Disches Bossew, sanculrural drausses, mosquato emetrel, etc.)		_
Actively managed hydrology		
Comments		
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Stressor Checklist - Next Steps

- Overall stress on a wetland can be assessed as the <u>number</u> of evident stressors and their <u>extent</u>
- 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

