National Biological Assessment and Criteria Workshop

Advancing State and Tribal Programs

Coeur d'Alene, Idaho
31 March – 4 April, 2003

PLENARY SESSION

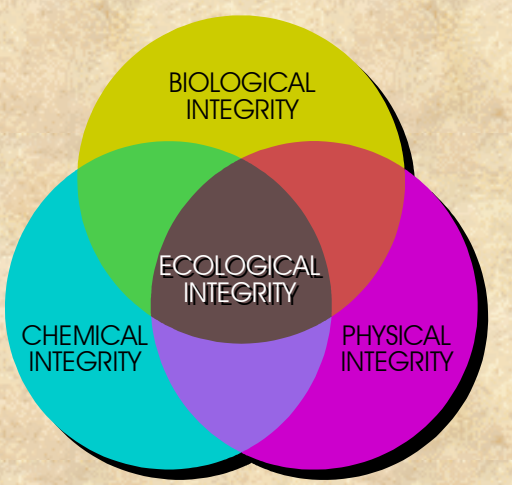
USING BIOLOGICAL ASSESSMENTS TO REFINE DESIGNATED AQUATIC LIFE USES: EPA/STATE WORKGROUP

Susan Jackson, US EPA

Clean Water Act

- **Objective: "restore and maintain the chemical, physical and biological integrity of the Nation's waters"**

- **Interim goal: "water quality which provides for the protection and propagation of fish, shellfish and wildlife … wherever attainable."**



Using Biological Assessments to Refine Designated Aquatic Life Uses

Long Term EPA Goal:	**All States & Tribes have refined aquatic life uses and biological criteria in their water quality standards**
Program Priority:	**Guidance on Use of Biological Assessments and Criteria to Refine Aquatic Life Uses in WQ Standards**

Using Biological Assessments to Refine Designated Aquatic Life Uses

Why? **Direct and More Accurate Description of CWA Goal for Aquatic Life**

- **prioritize & target resources**
- **appropriate level of protection**
- **communication to public**

Using Biological Assessments to Refine Designated Aquatic Life Uses

How? **Build on what works in existing State and Tribal programs**

EPA/State Workgroup: Objectives

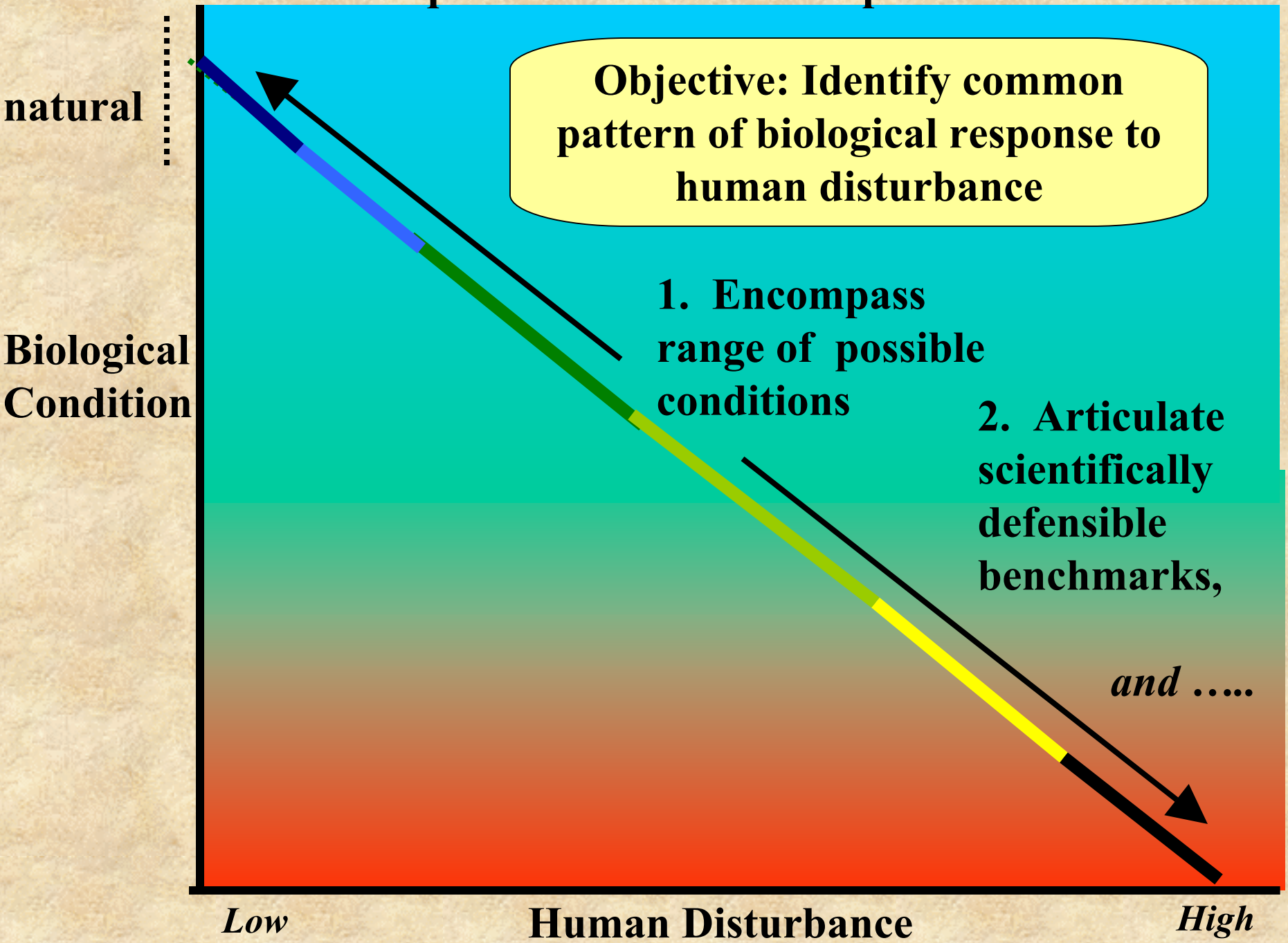
- **Develop national framework for use of biological assessments and criteria to refine designated aquatic life uses (quality gradient);**
- **Propose how to apply to existing State & Tribal WQS programs;**
- **Identify pitfalls and barriers to implementation;**
- **Problem solve and propose solutions.**

EPA/State Workgroup: Objectives

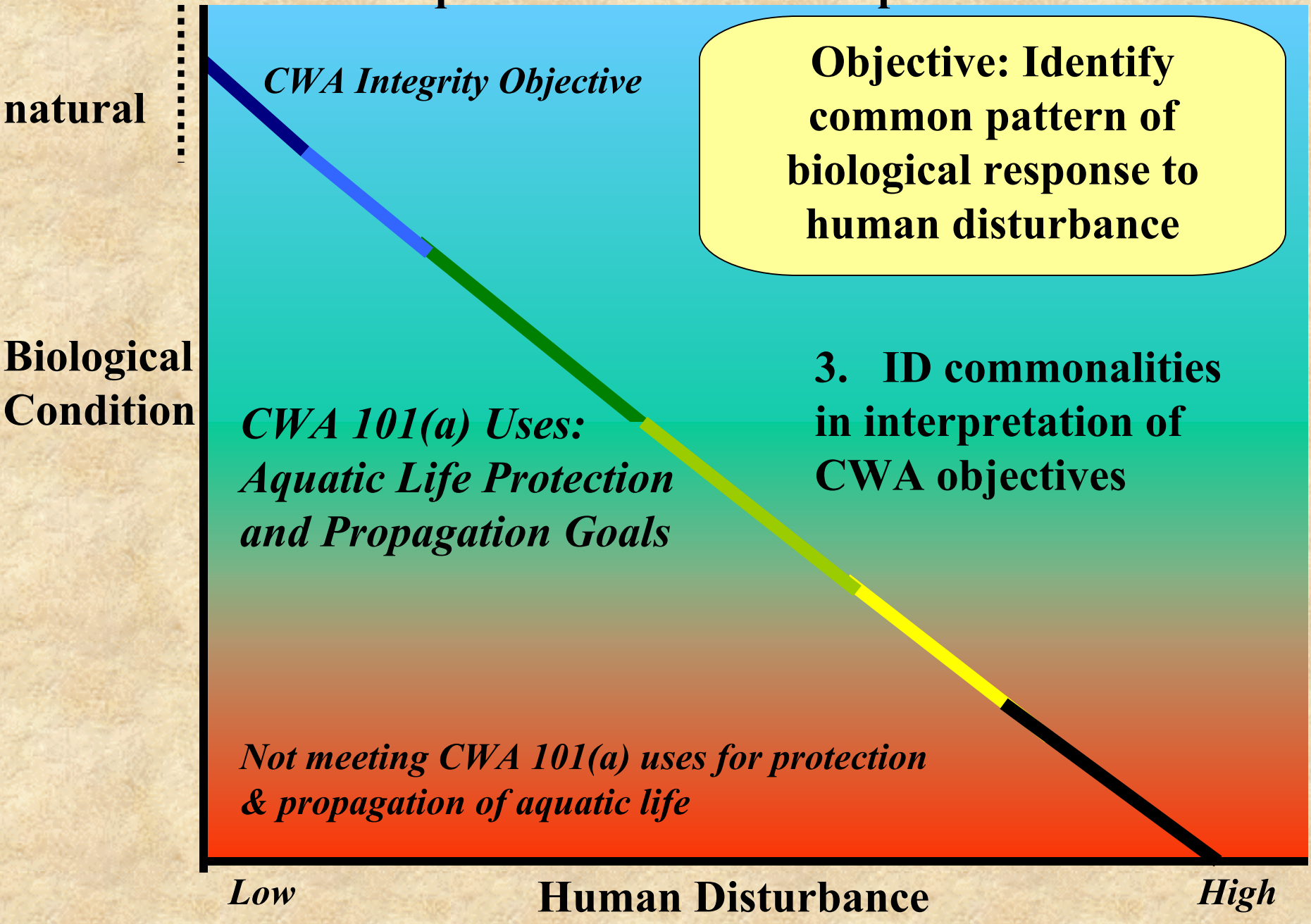
First Task:

- **Develop national framework for use of biological assessments and criteria to refine designated aquatic life uses (quality gradient);**
- **Propose how to apply to existing State & Tribal WQS programs;**
- **Identify pitfalls and barriers to implementation;**
- **Problem solve and propose solutions.**

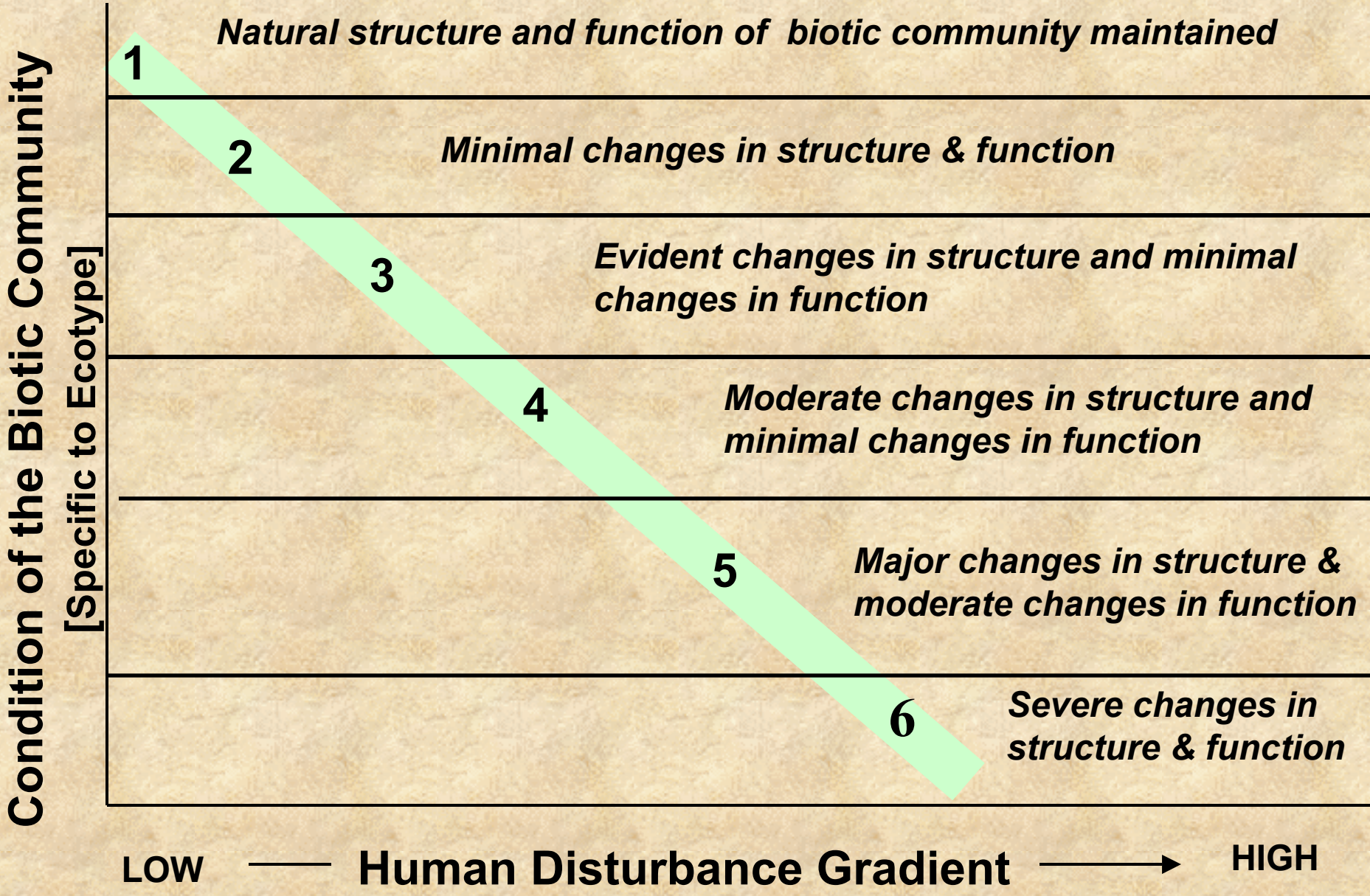
Tiered Aquatic Life Uses: Conceptual Framework



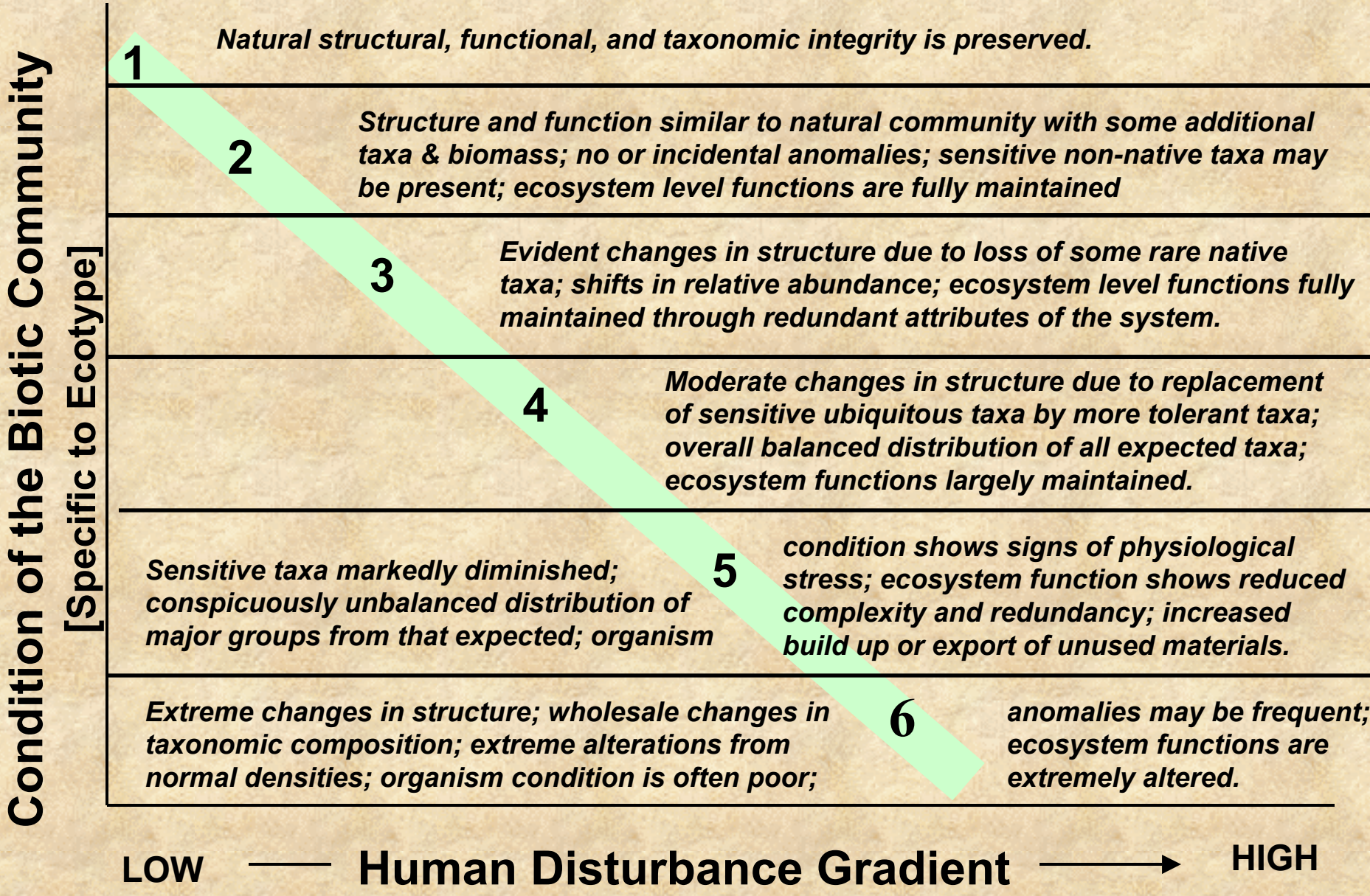
Tiered Aquatic Life Uses: Conceptual Framework



Tiered Aquatic Life Use Conceptual Model: Draft Biological Tiers -1



Tiered Aquatic Life Use Conceptual Model: Draft Biological Tiers -2



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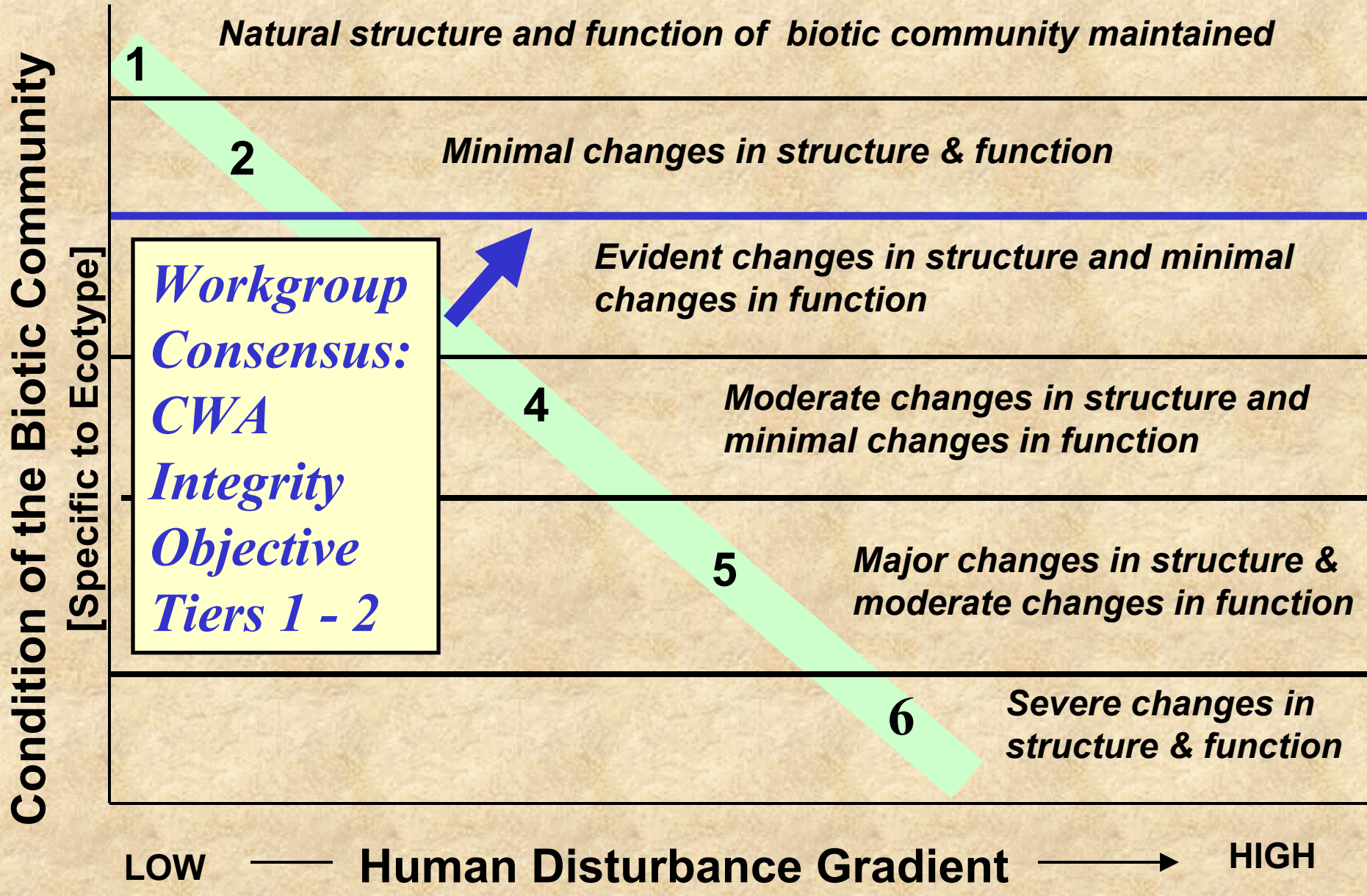

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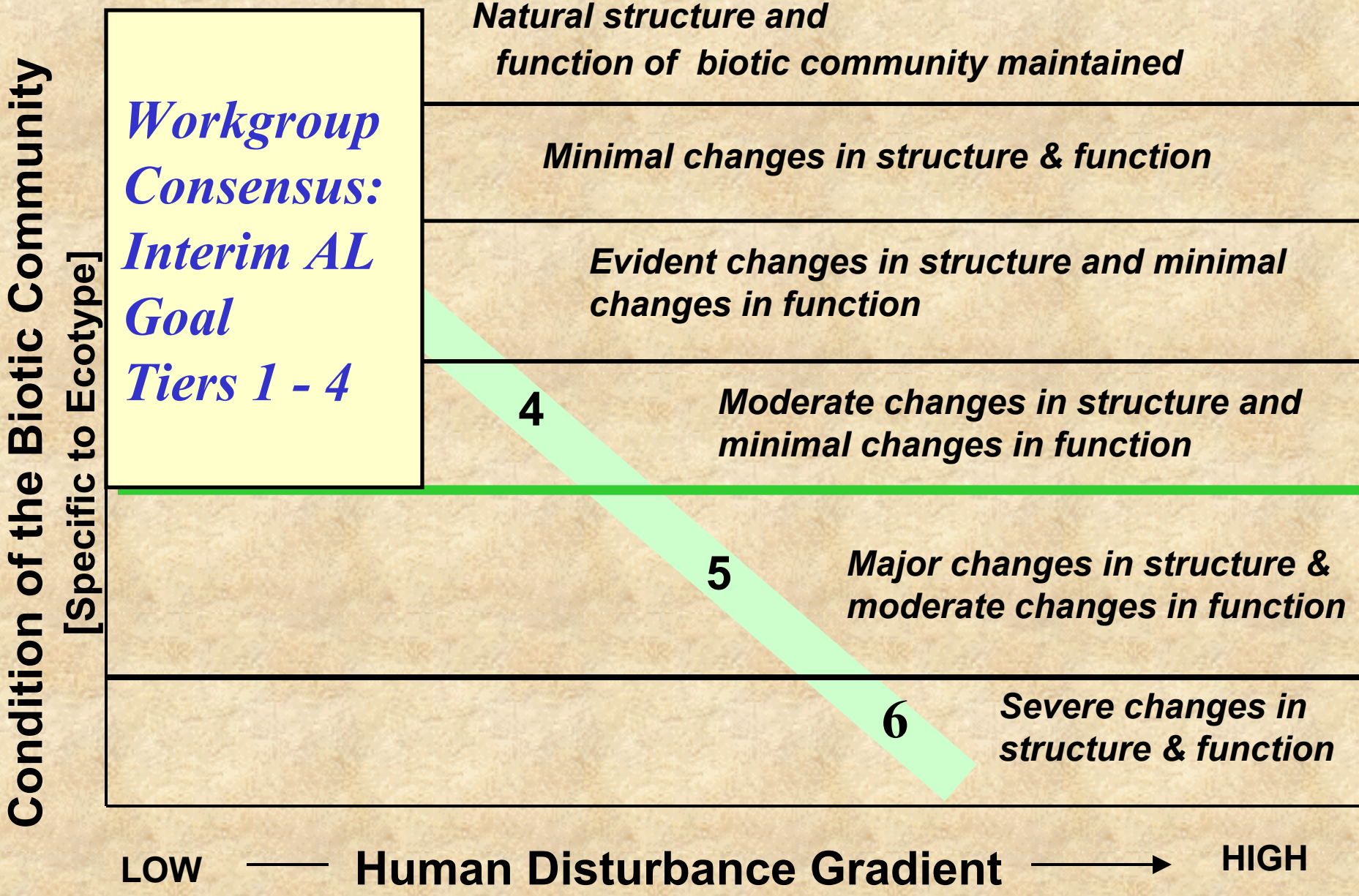


EPA/State Workgroup: Objectives

- **Develop national framework for use of biological assessments and criteria to refine designated aquatic life uses (quality gradient);**

***Current Tasks*:**

- **Propose how to apply to existing State & Tribal WQS programs;**
- **Identify pitfalls and barriers to implementation;**
- **Problem solve and propose solutions.**

Purpose of Framework

Nationally consistent approach for:

- **scientifically defensible benchmarks**
- **common framework for communication & evaluation - public, stakeholders, across political boundaries**
- **protection for excellent quality waters**
- **achievable goals for incremental restoration**

Key Points to Emphasize:

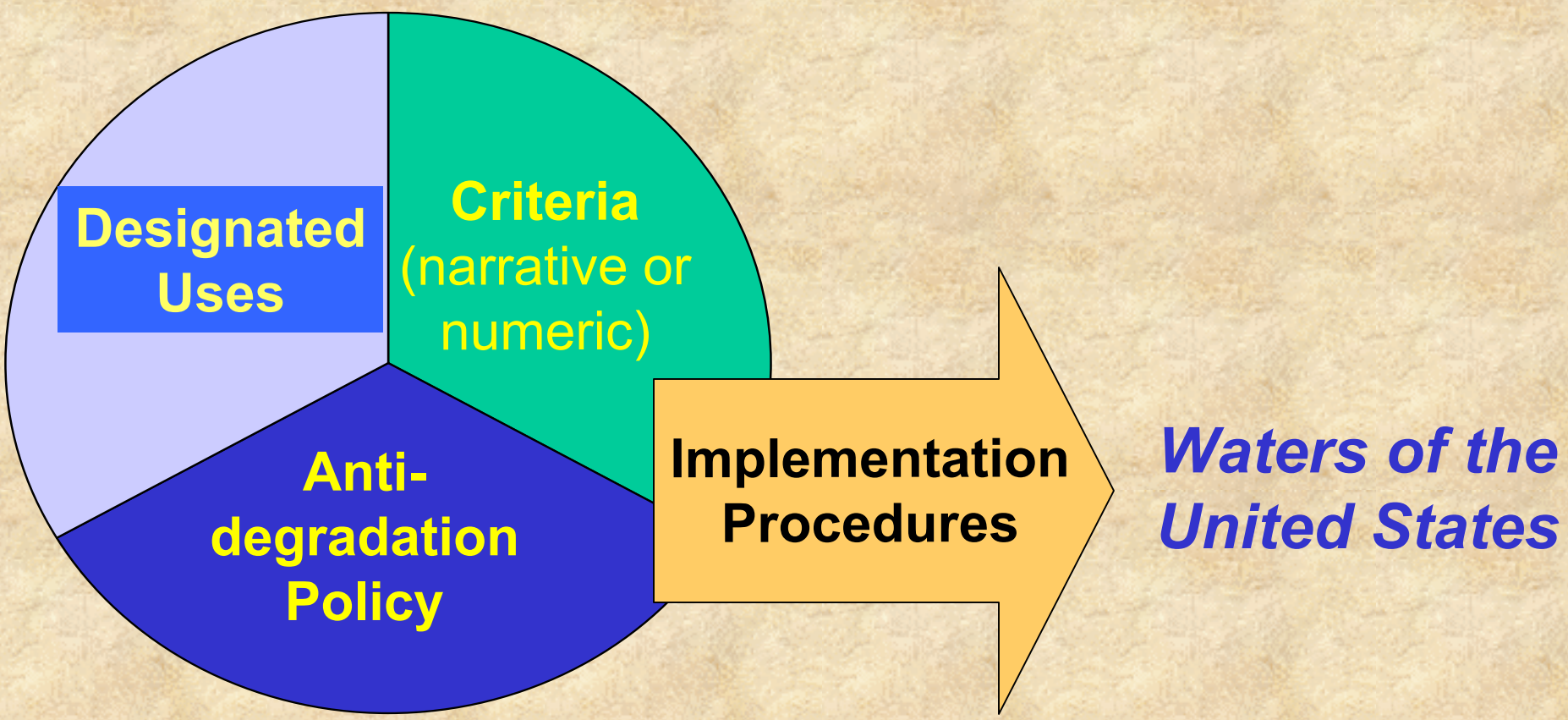
#1: The framework is conceptual

#2: Number of tiers to be determined by State or Tribe

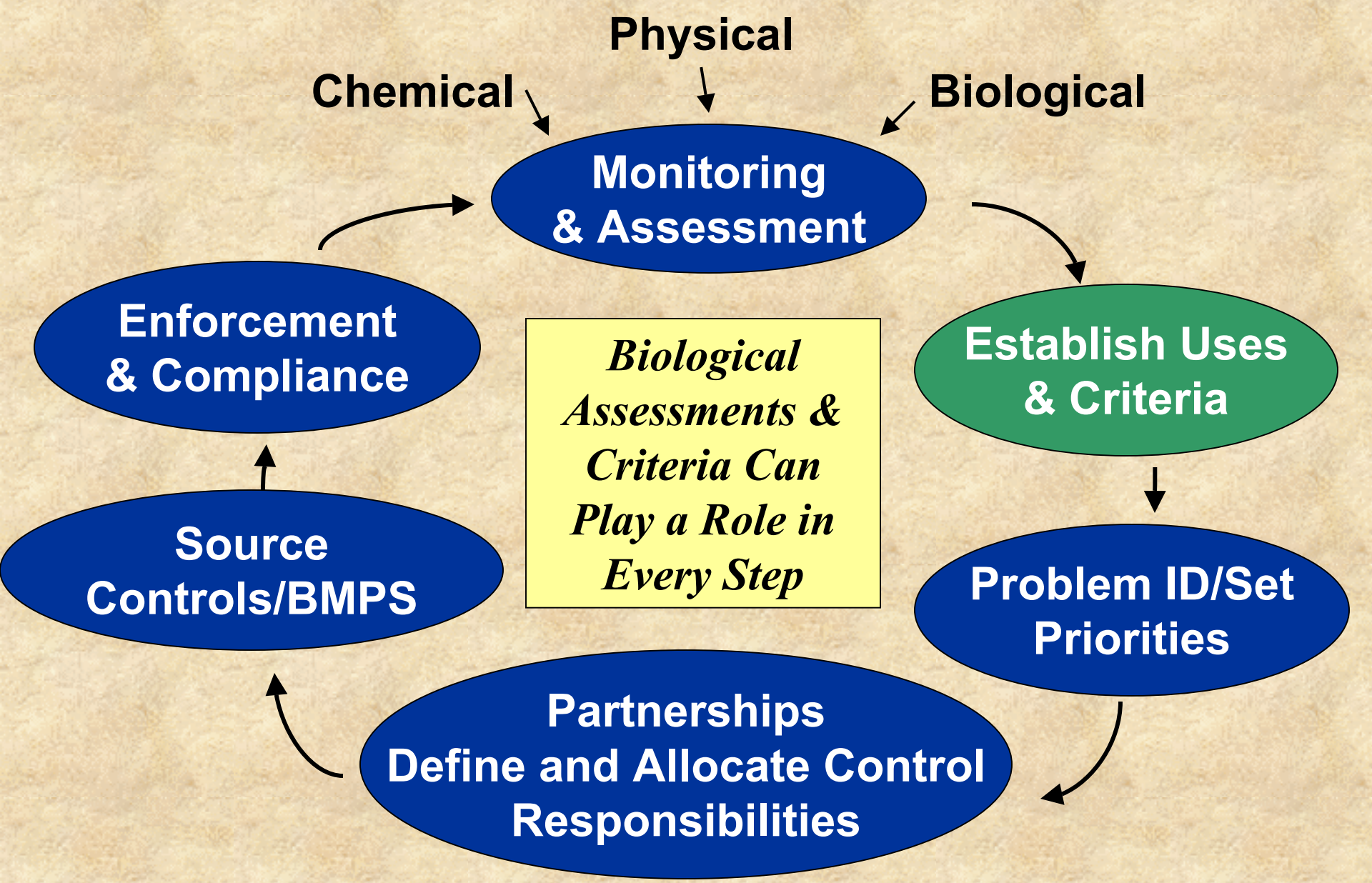
#3: "Best Fit" approach recommended

#4: The framework may be quantitatively defined by many possible methods

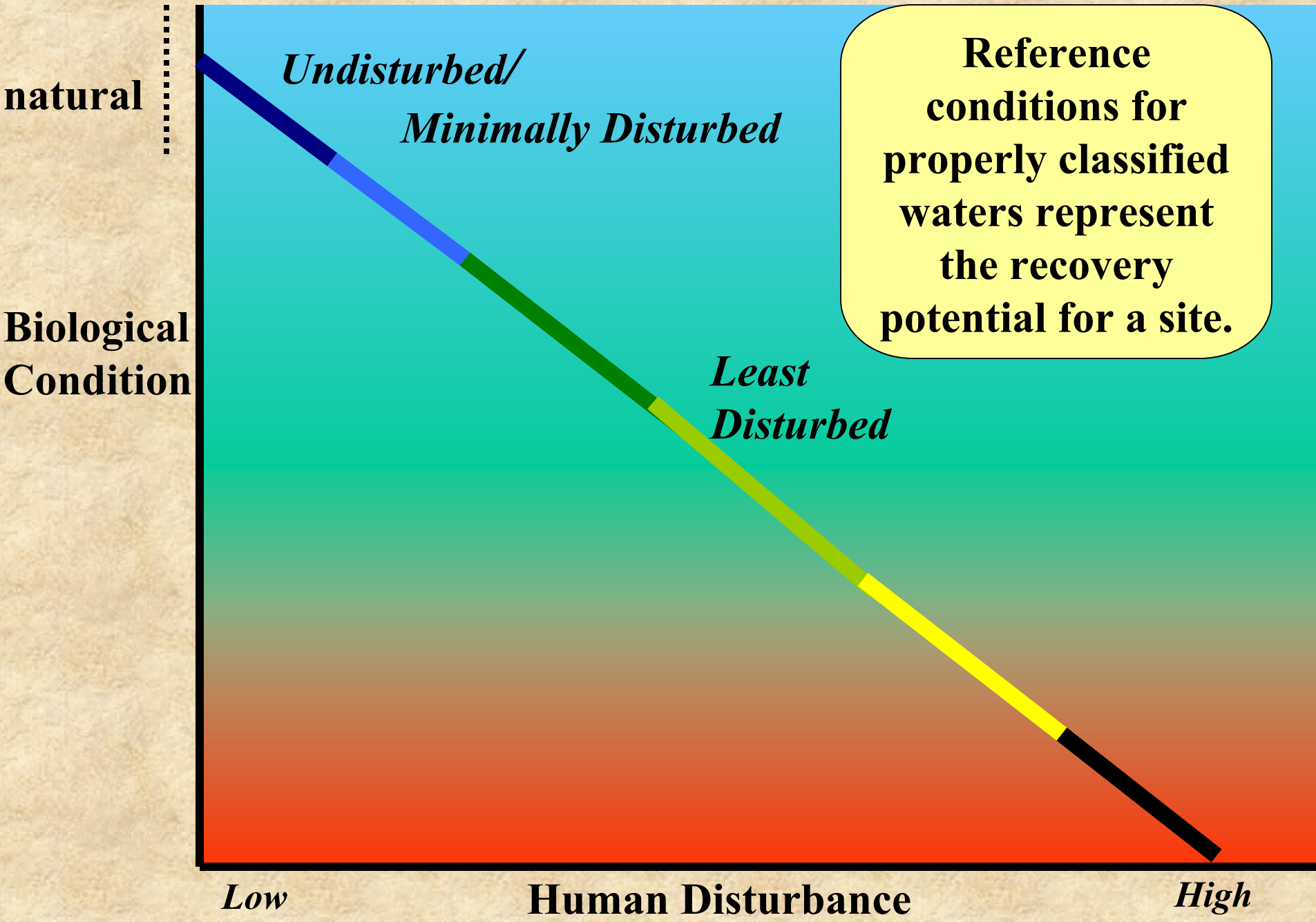
Water Quality Standards



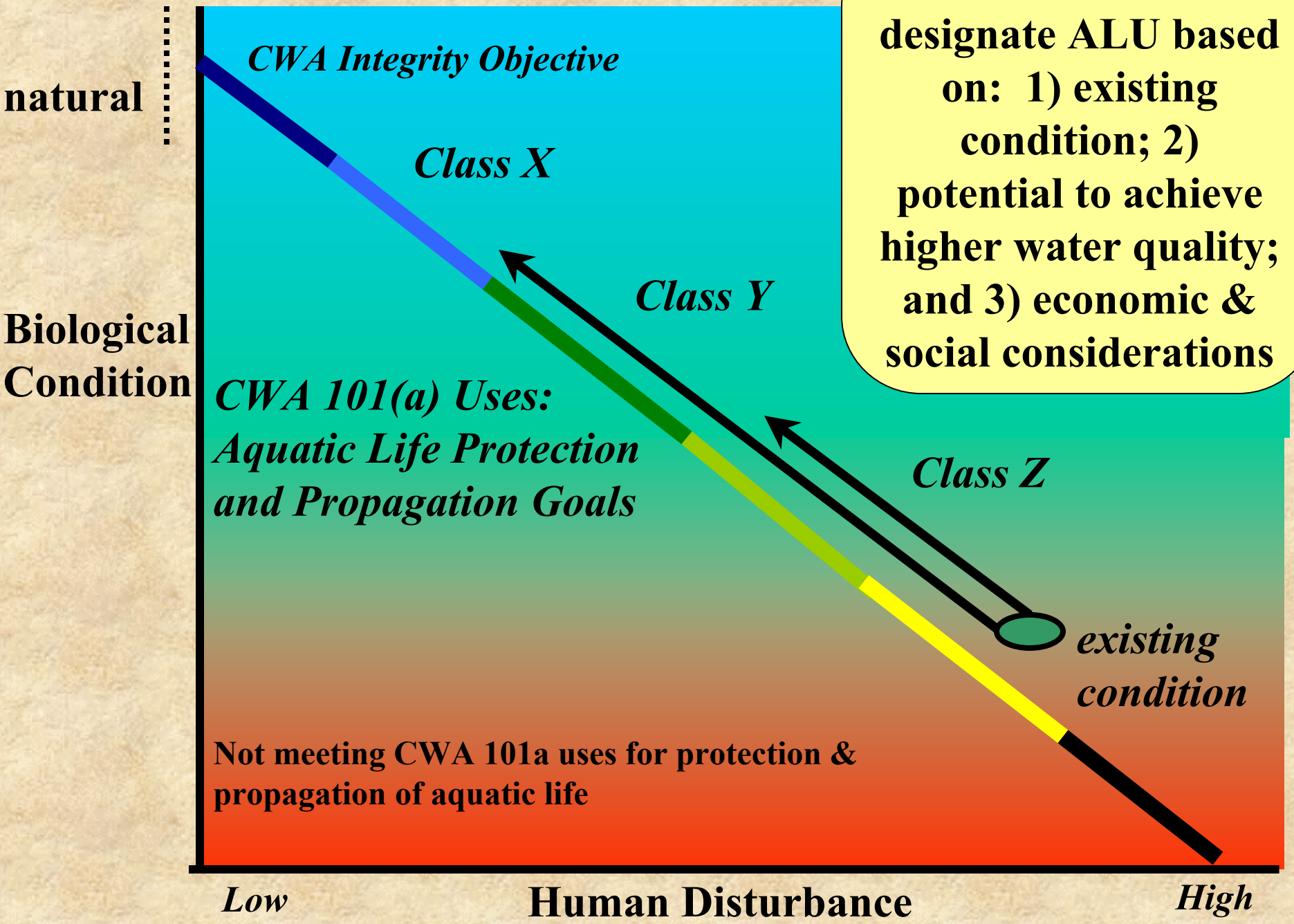
EPA's Water Program



Establishing Reference Conditions

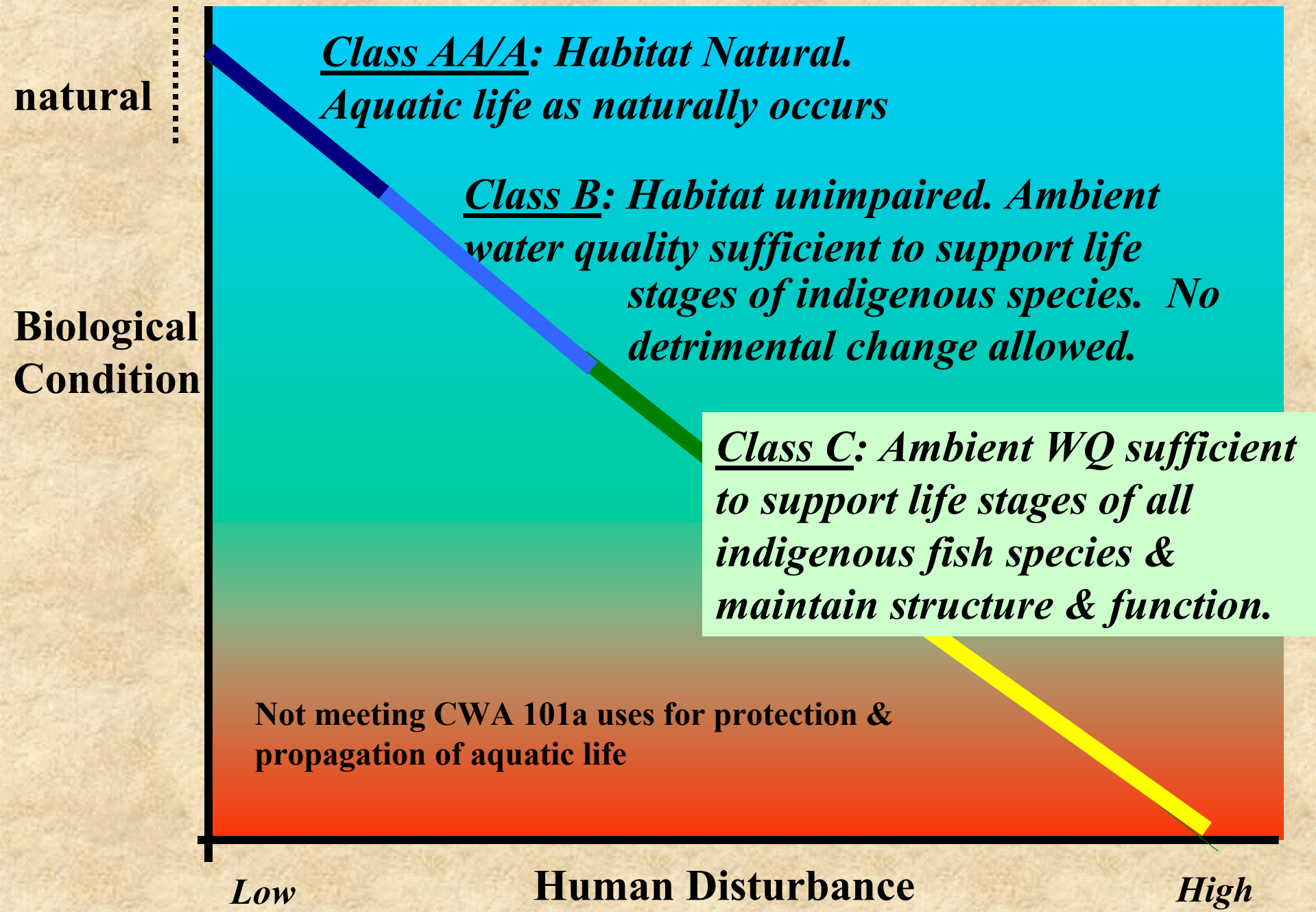


Designation of Aquatic Life Uses

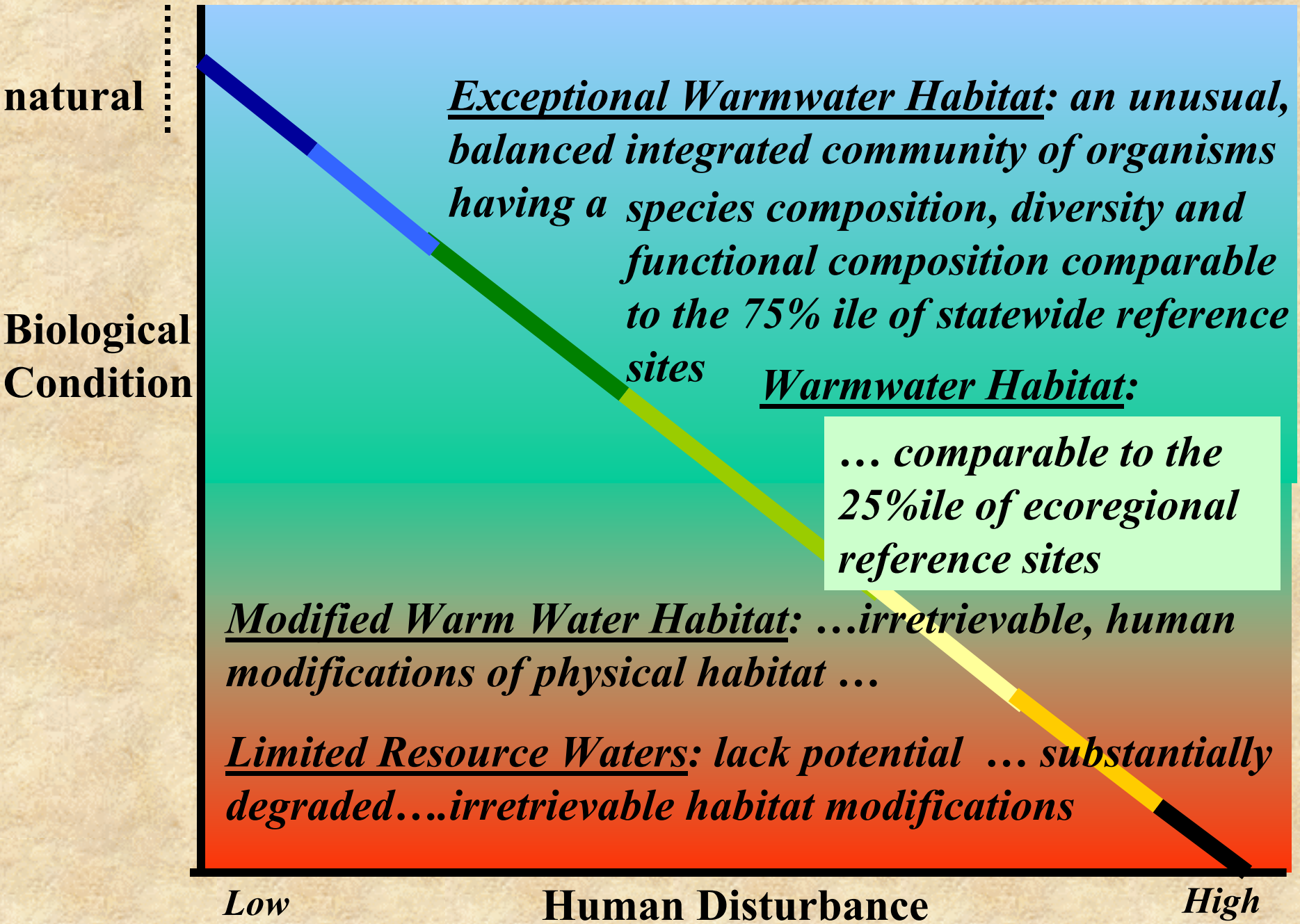


Public Process to designate ALU based on: 1) existing condition; 2) potential to achieve higher water quality; and 3) economic & social considerations

Designated Aquatic Life Uses: Example Maine



Designated Aquatic Life Uses: Ohio/Streams & Rivers



Status of Workgroup Effort

Draft Biological Condition Gradient (TALU 101)

Draft Human Disturbance Gradient (TALU 201)

Implementation (TALU 202)

Status of Workgroup Effort

Case Scenarios – *in process*

Streams: Northern forested coldwater, Great Plains, Arid West, MW Headwaters

Rivers: Ohio and Upper Mississippi Rivers

Wetlands: depressional and riverine

Estuary: Narragansett Bay, RI

Workgroup Recommendations Going Forward to EPA This Spring:

1. **Draft Conceptual Model (BCG and HDG)**

2. **Implementation Options**

3. **Technical Underpinnings:**
   - **relationship between BCG and WQC**
   - **critical elements of a biological assessment program**
   - **strengths of current model and areas of uncertainty**

4. **Case Examples: Different Places and Types of Waterbodies (streams, rivers, wetlands, estuaries)**