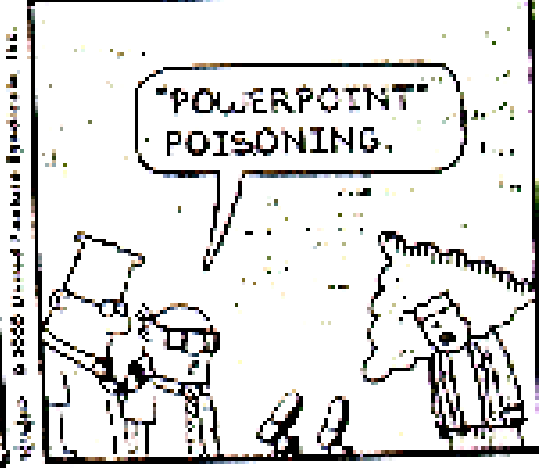
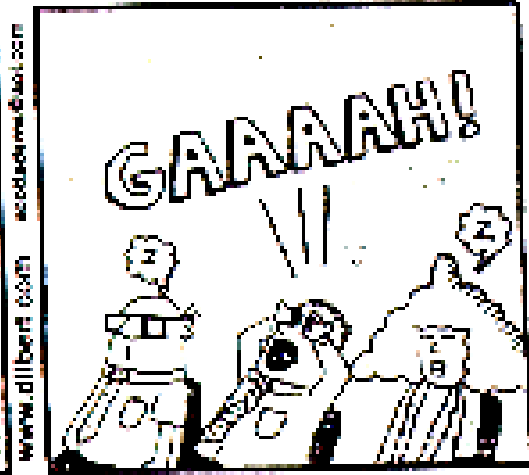
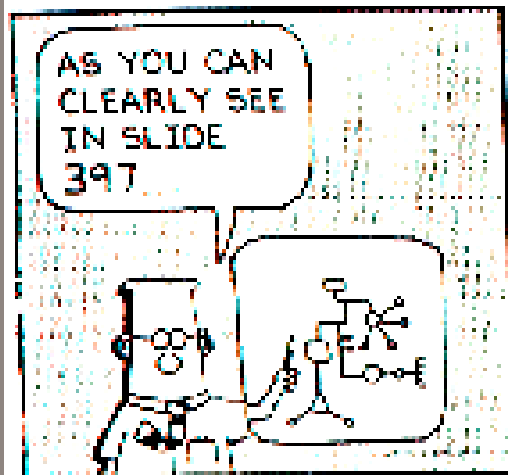


DILBERT



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ADAPTIVE MANAGEMENT



Assessment



Prioritization



Activity (Design/Implementation)



Monitoring



Modification

ADAPTIVE MANAGEMENT

➤ **What is the Resource Condition?**

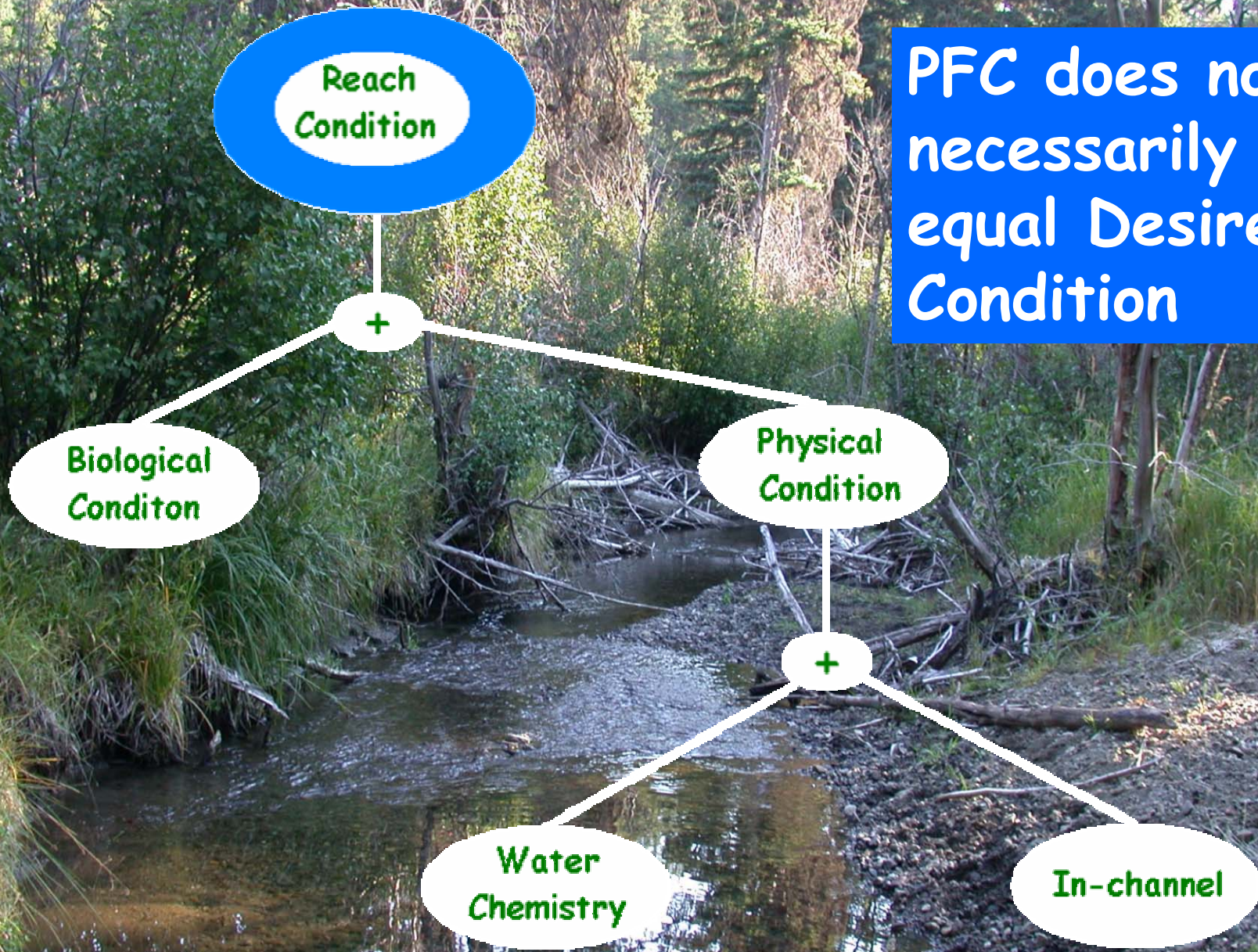
RIPARIAN MANAGEMENT OBJECTIVES

Pool Frequency	Width	10	20	25	50	75	100	125	150	200
	Pools/Mile	96	56	47	26	23	18	14	12	9
Width/Depth Ratio	<10, mean wetted width/mean depth									
Water Temperature	64° F - Migration & Rearing									
	60° F - Spawning									
Large Woody Debris	>80 pieces/mile; >24” dia.; >35’ len. - Coast									
	>20 pieces/mile; >12” dia.; >35’ len. - Eastside									
Bank Stability	> 80% Stable									
Lower bank Angle	>75% of banks with <90% angle									

PFC Helps

- » Determine potential and capability
- » Provide linkage between reach/watershed processes and habitat/water quality conditions
- » Define issues that need to be addressed
- » Selecting appropriate management practices
- » Determine appropriate monitoring

PFC does not necessarily equal Desired Condition



PFC

PFC Helps

» Determine potential and capability

» Provide linkage between reach/watershed processes and habitat/water quality conditions

» Define issues that need to be addressed

» Selecting appropriate management practices

» Determine appropriate monitoring

Water Quality (water temperature)

Width:Depth Ratio

Shading

Topographic

Riparian

Inflow

Bank Storage

Springs

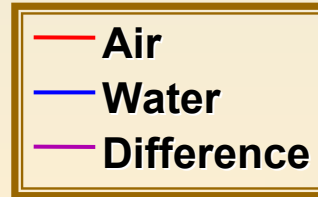
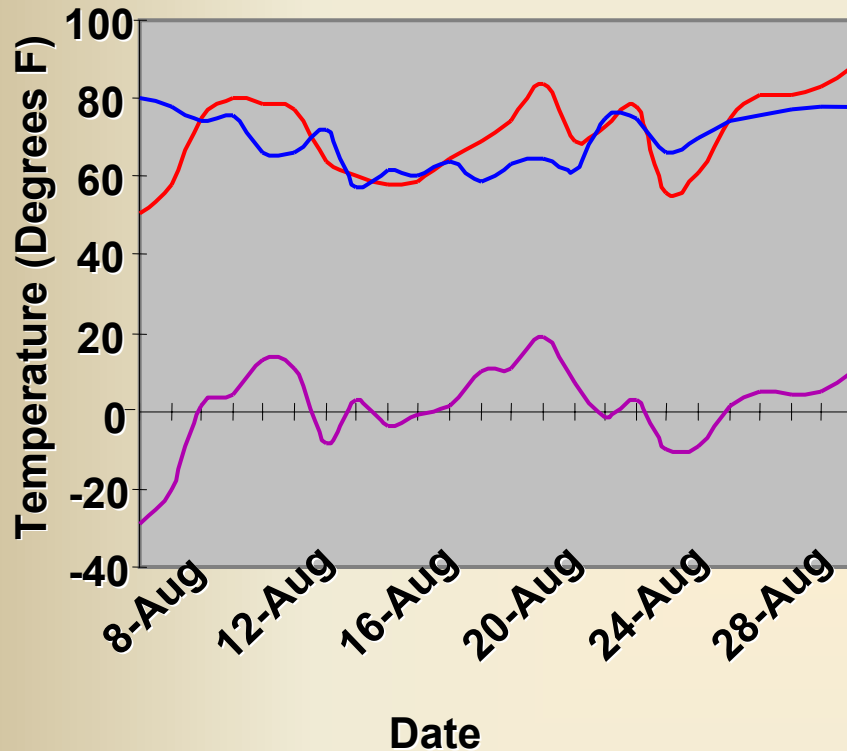
Sub Surface Flow

In channel

Adjacent slopes

Difference in Air & Water Temperatures

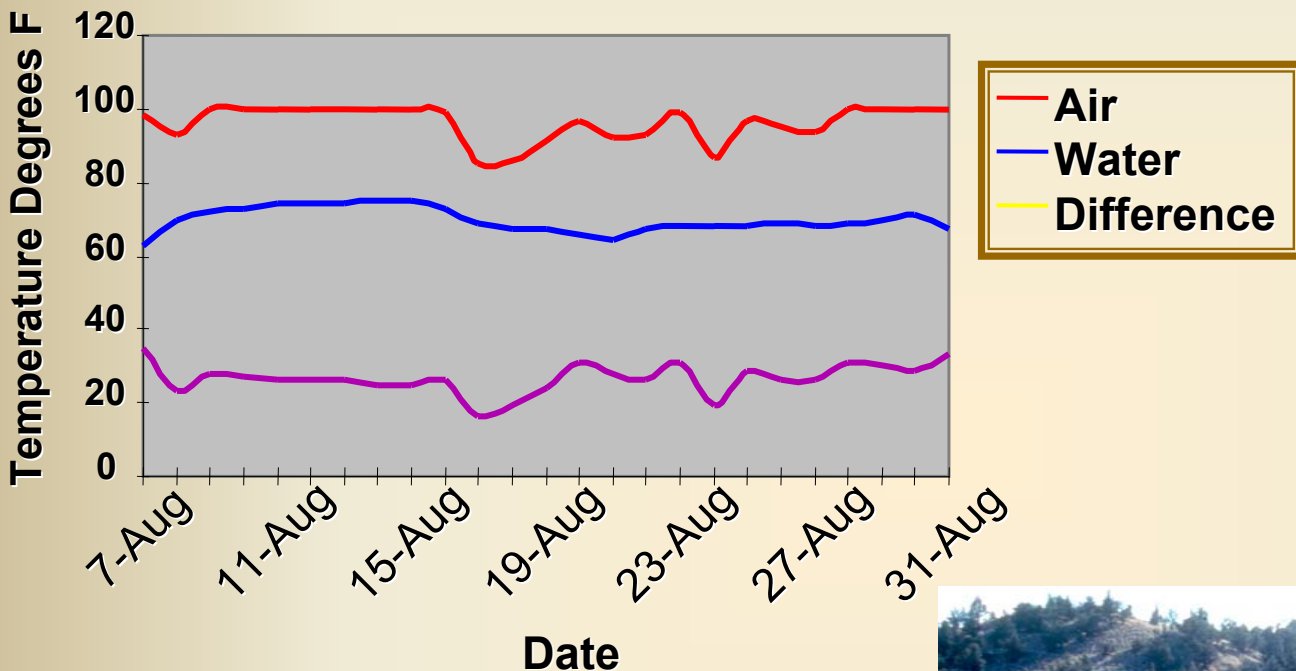
Bear Creek - Central Oregon 1977



Difference in Air & Water Temperatures

Bear Creek - Central Oregon

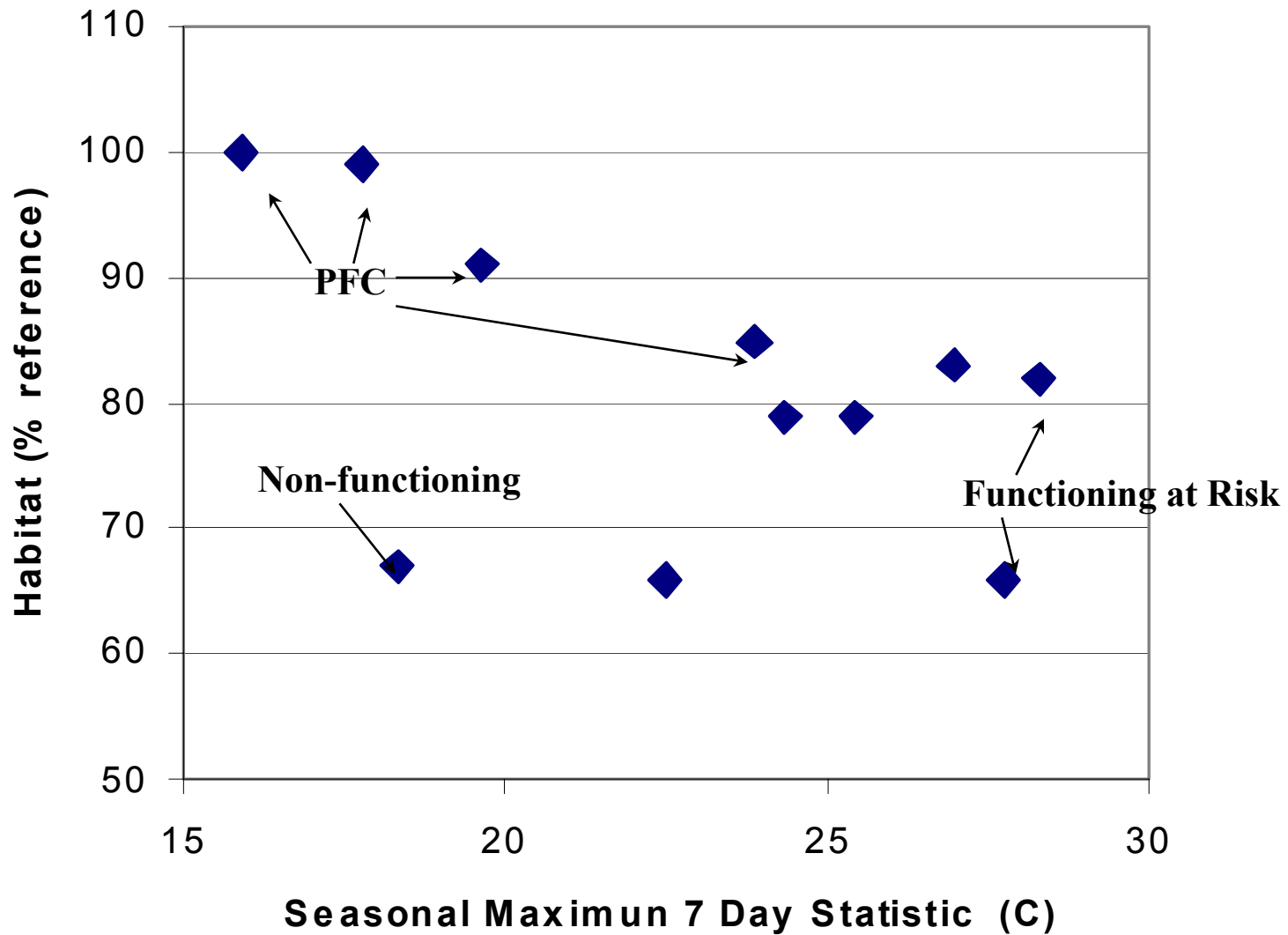
1998



Physical Habitat Structure

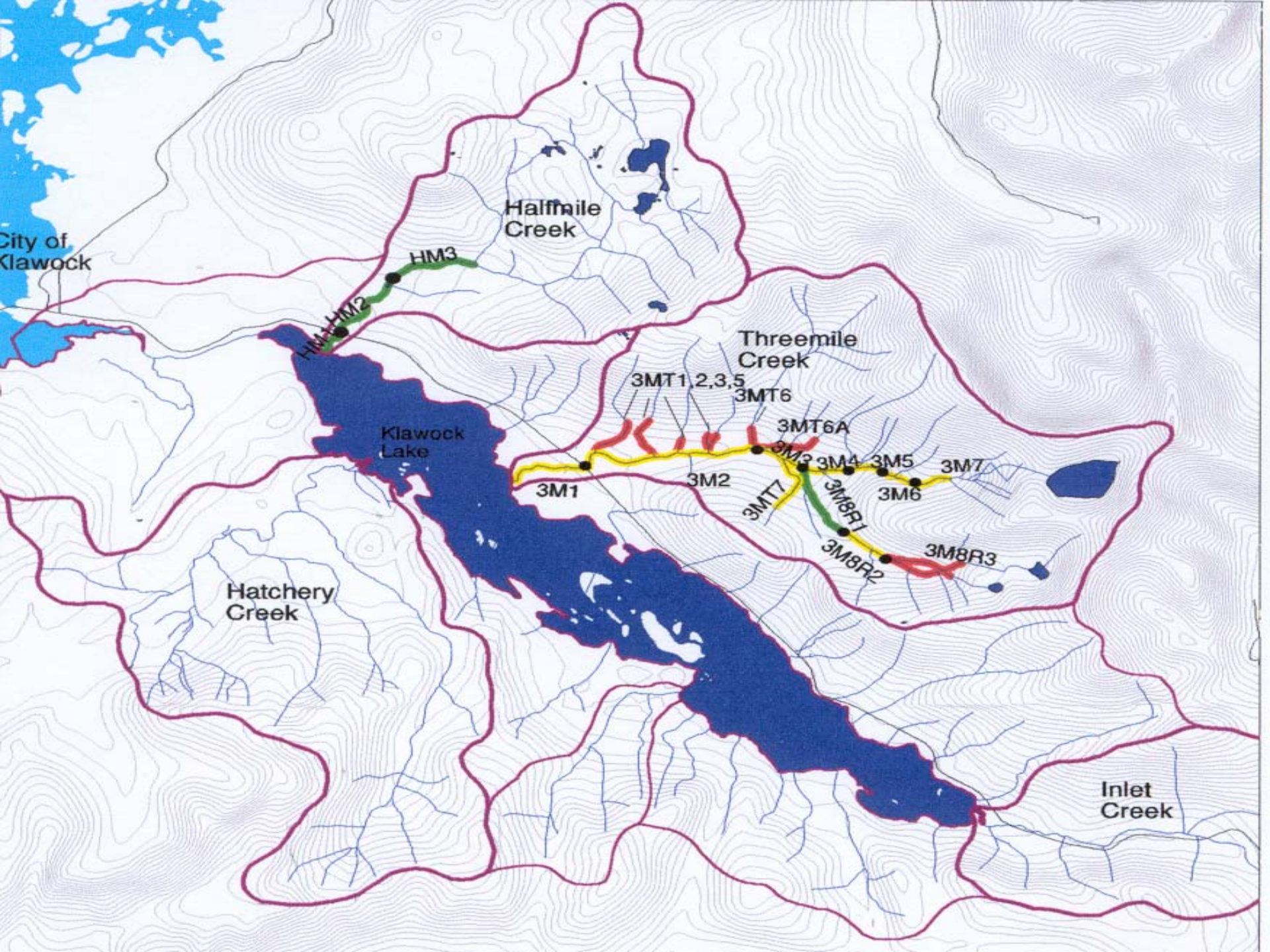
- » **Depth**
- » **Velocity**
- » **Position In Channel**
- » **Turbulence**
- » **Shape**
- » **Cover**

Maximum Temperature vs. Habitat Condition NMP Sites - 1997



ADAPTIVE MANAGEMENT

- **Based on need**
- **Reach, watershed, basin scale**



City of
Klawock

Halfmile
Creek

HM3

HM2

Klawock
Lake

Threemile
Creek

3MT1, 2, 3, 5

3MT6

3MT6A

3M1

3M2

3M3

3M4

3M5

3M7

3M6

3M7

3M8R1

3M8R2

3M8R3

Hatchery
Creek

Inlet
Creek

ADAPTIVE MANAGEMENT

- Designed to address the “why”
- Reach, watershed, basin scale

PFC Helps

» Determine potential and capability

» Provide linkage between reach/watershed processes and habitat/water quality conditions

» Define issues that need to be addressed

» Selecting appropriate management practices

» Determine appropriate monitoring



ADAPTIVE MANAGEMENT

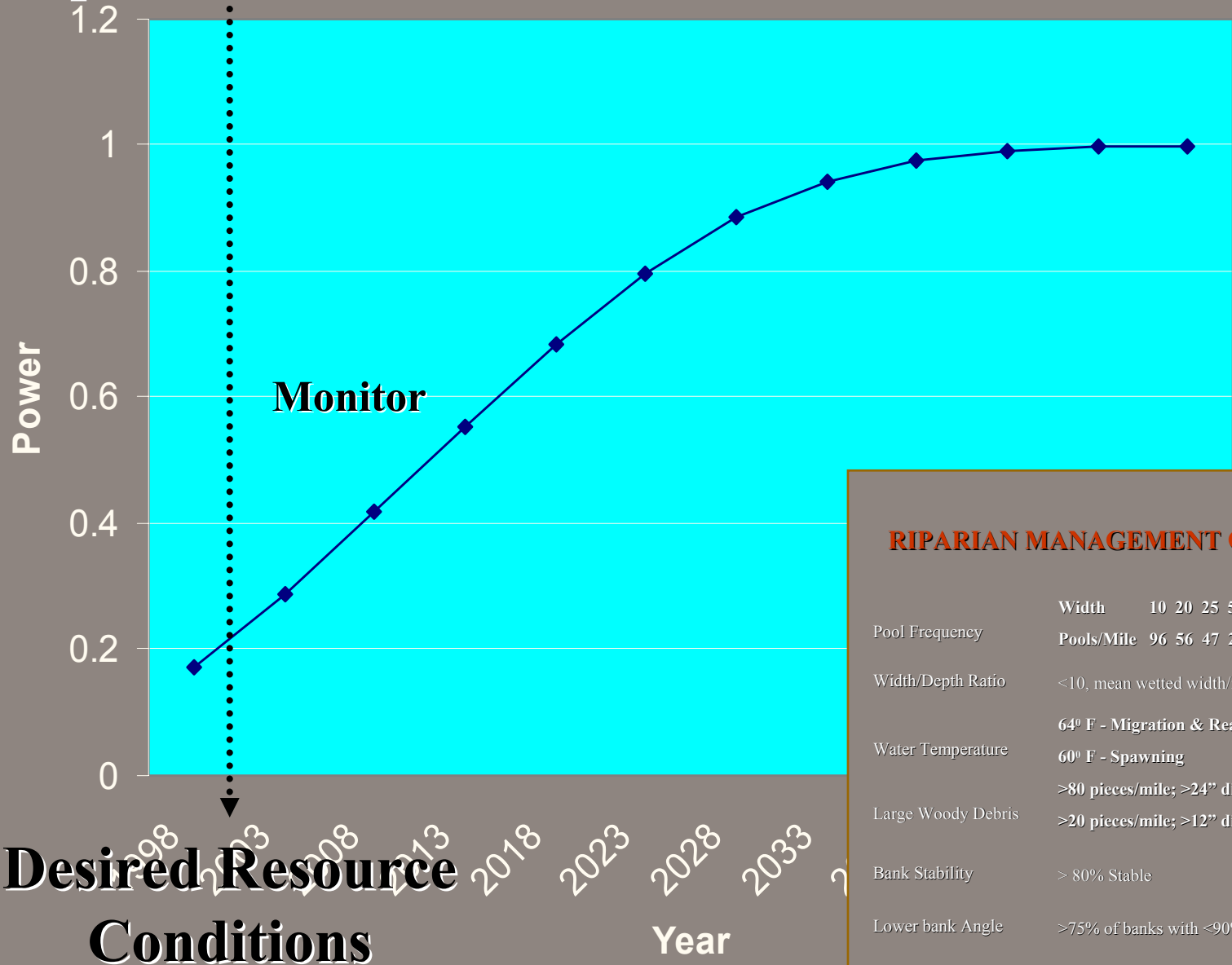
➤ **Is the Resource Condition Improving?**

RIPARIAN MANAGEMENT OBJECTIVES

Pool Frequency	Width	10	20	25	50	75	100	125	150	200
	Pools/Mile	96	56	47	26	23	18	14	12	9
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Lower bank Angle	>75% of banks with <90% angle									

POWER CURVE

Implement Action



RIPARIAN MANAGEMENT OBJECTIVES

Pool Frequency	Width	10	20	25	50	75	100	125	150	200
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ADAPTIVE MANAGEMENT

➤ Is the activity ‘fixing’ the “why”?

ADAPTIVE MANAGEMENT

**T
I
M
E**
↓

ANNUAL
INDICATORS OF
RECOVERY

5

End-of-season condition
e.g. residual vegetation

3 - 5 - YEARS
INDICATORS OF
RECOVERY

10

Vegetative component
e.g. greenline

5 - 10 YEARS
INDICATORS OF
RECOVERY

= Ve

ADAPTIVE MANAGEMENT

DECADES
INDICATORS OF
RECOVERY

Decades
Riparian
Objectives

**T
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E**
↓

ANNUAL
INDICATORS OF
RECOVERY

= End-of-season condition
e.g. residual vegetation

3 - 5 - YEARS
INDICATORS OF
RECOVERY

= Vegetative component
e.g. greenline

5 - 10 YEARS
INDICATORS OF
RECOVERY

= Vegetative component
e.g. a. X-section composition
b. Woody recruitment

DECADES
INDICATORS OF
RECOVERY

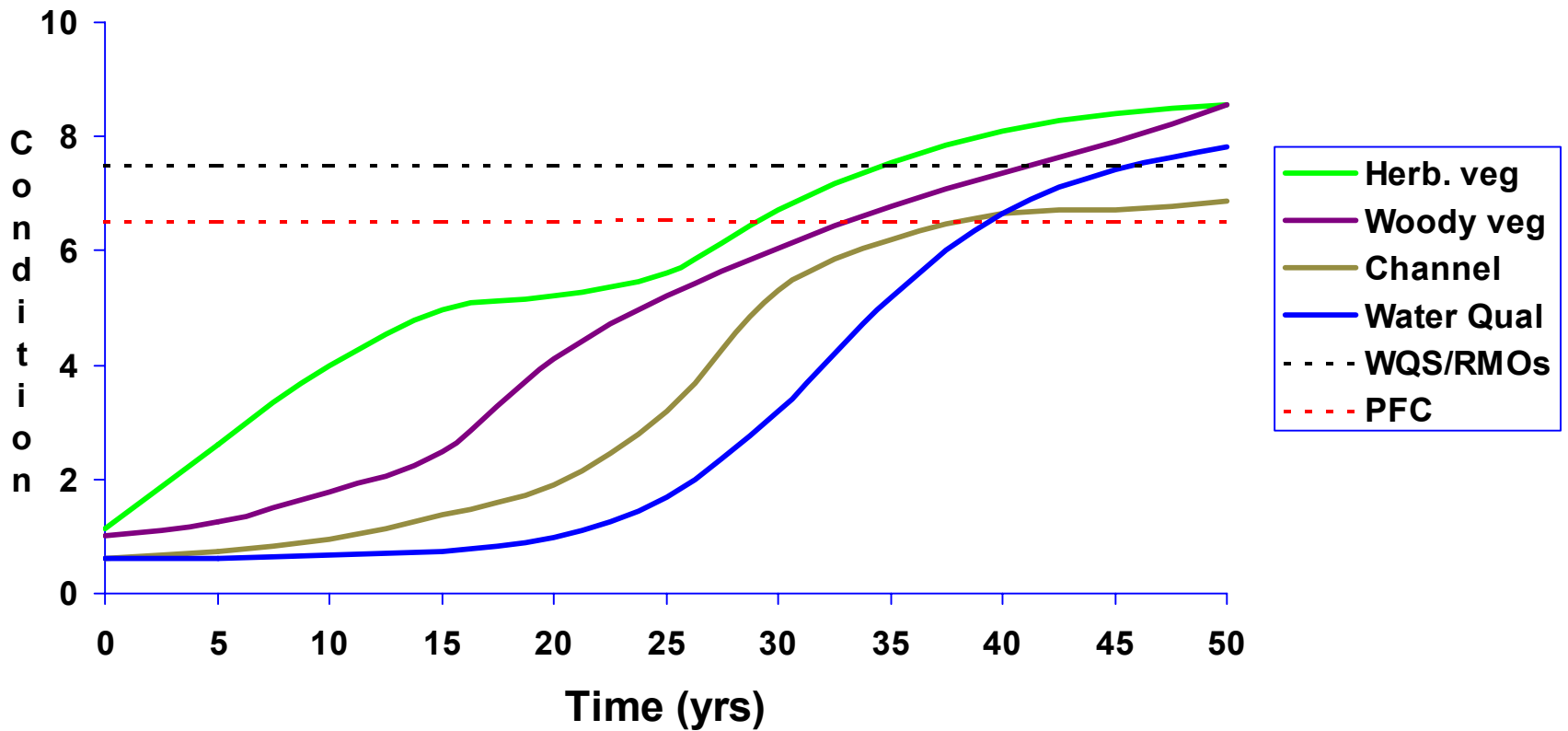
= Riparian Management
Objectives, e.g., temp, pools

PFC Helps

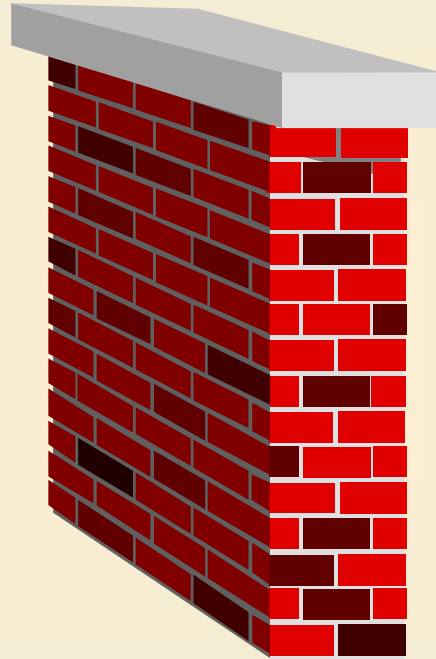
- »» Determine potential and capability
- »» Provide linkage between reach/watershed processes and habitat/water quality conditions
- »» Define issues that need to be addressed
- »» Selecting appropriate management practices
- »» Determine appropriate monitoring

Recovery Rates

Non-Functional

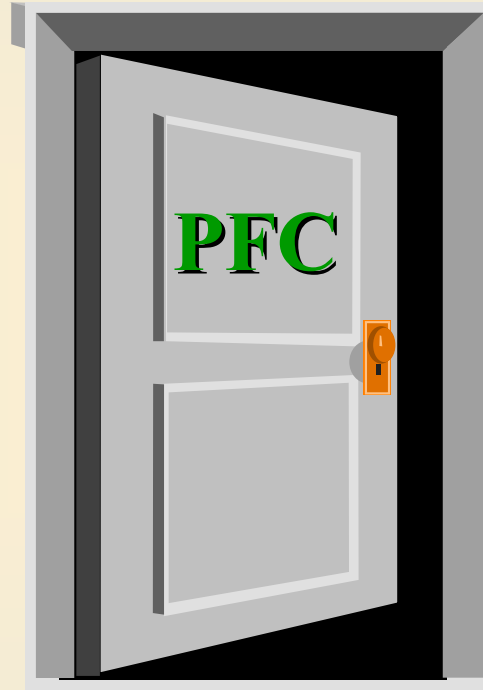


**Current
Conditions**



**Desired
Future
Conditions**

**Current
Conditions**



**Desired
Future
Conditions**

Supports

PFC ~~does not equal~~

» Desired Future Condition (DFC)

Supports

PFC ~~does not replace~~

» Legal Requirements, e.g., ESA, CWA

