

Protecting Endangered Species from Pesticides

Using Stewardship, Co-creation and Emergent Solutions

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Three Levels of Complexity

Type of Complexity	Definition	Ordinary Approach for Simple Problems	Extraordinary Approach for Complex Problems
Social	Diverse perspective and interests	Experts and Authorities	Actors and stakeholders
Dynamic	Cause and effect are distant in time and space	Piece by piece	System as a whole
Generative	Future is unfamiliar and undetermined	Existing solutions	Emerging solutions

(Kahane, 2010)

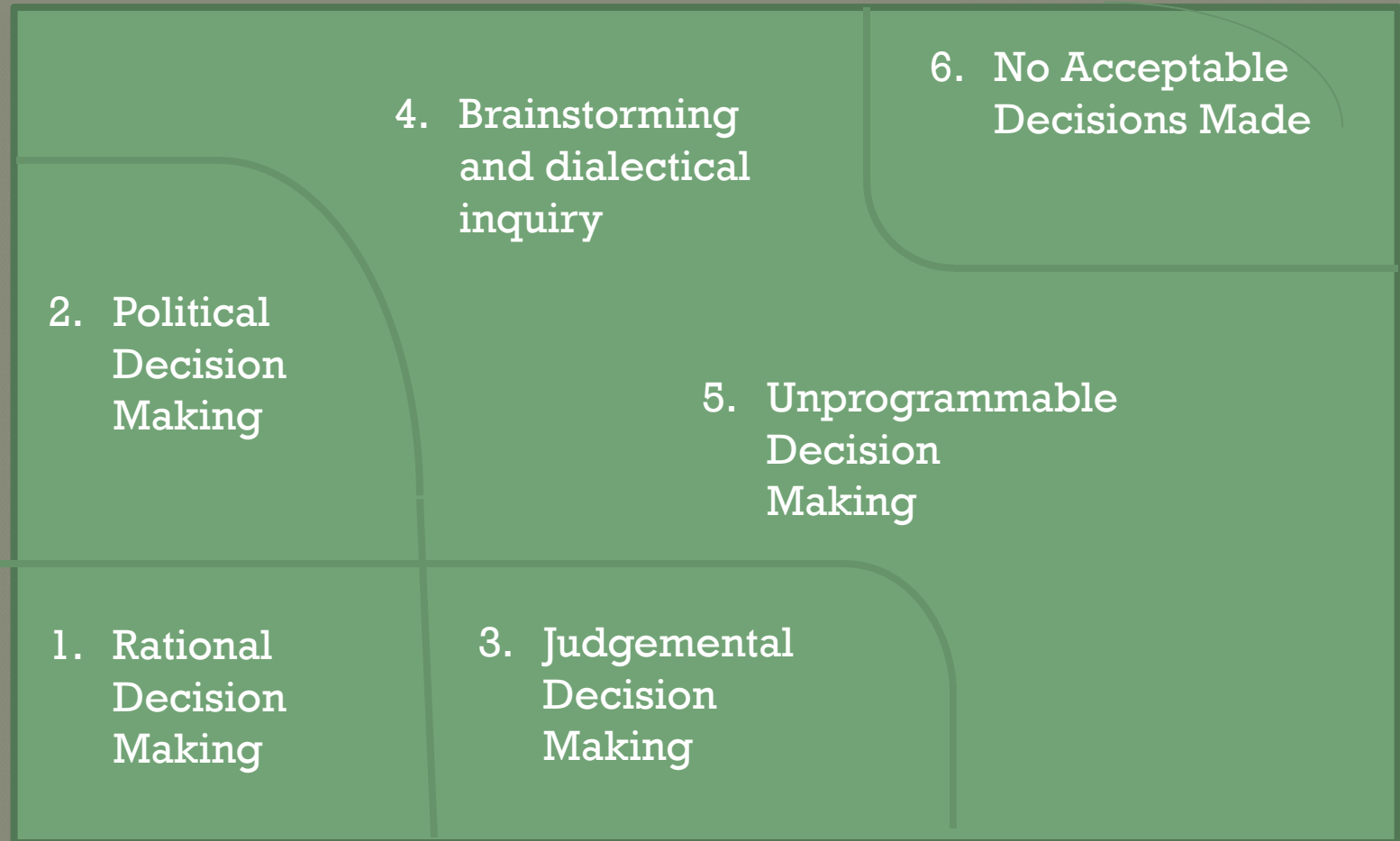


Decision Making Styles Employed – Zones of Complexity

Far From Agreement



Close to Agreement



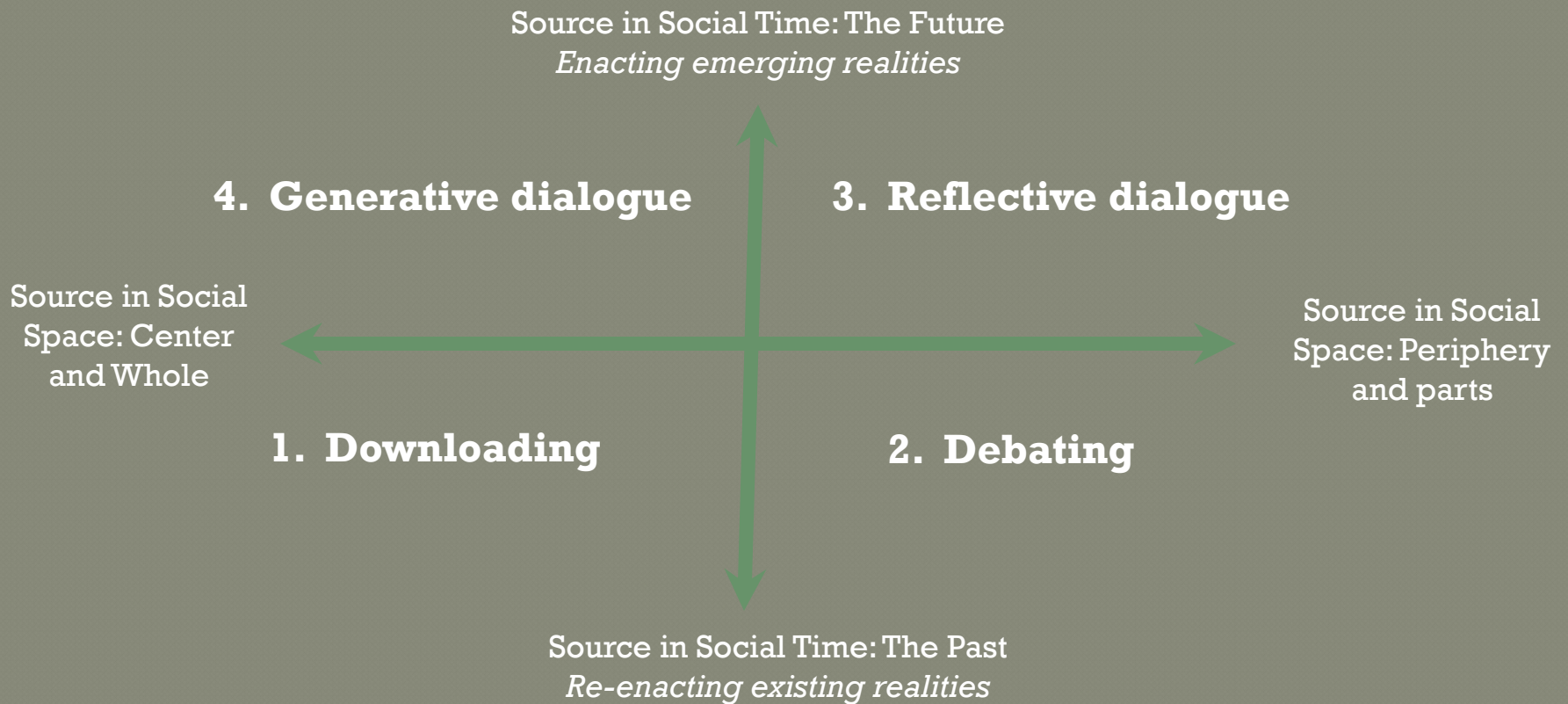
Close to Certainty



Far From Certainty



Four Ways of Talking and Listening



Source: Scharmer

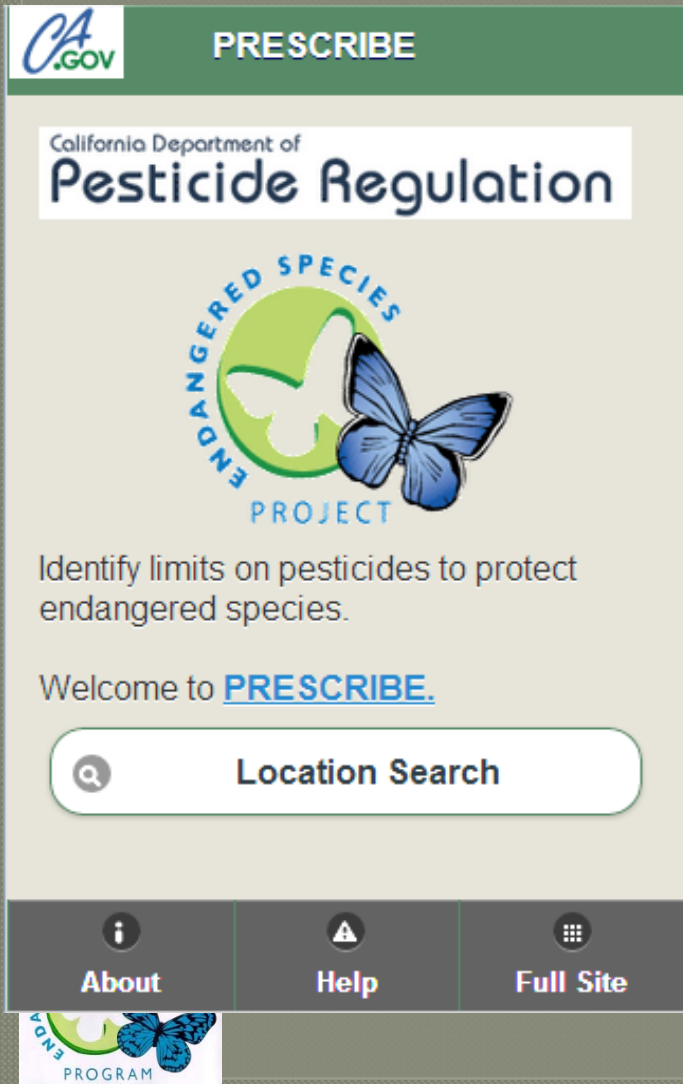


A Socio-Ecological Problem

- A human problem informed by science
 - Too complex to be solved
 - Cannot be formulated or tested for a true or false result
 - Most of the relevant data is unknowable
 - No right or wrong solution
 - Situation can only be improved by good faith actions of stakeholders with diverse views enabling and empowering each other.



PRESCRIBE Mobile



The screenshot shows the mobile application interface for PRESCRIBE. At the top left is the CA.GOV logo. A green header bar contains the word "PRESCRIBE" in white. Below this is the text "California Department of Pesticide Regulation". The main content area features the "Endangered Species Project" logo, which includes a blue butterfly and a green globe with a white butterfly silhouette. Below the logo is the text "Identify limits on pesticides to protect endangered species." and "Welcome to [PRESCRIBE.](#)". A search bar with a magnifying glass icon and the text "Location Search" is present. At the bottom, there is a dark grey navigation bar with three buttons: "About" (with an 'i' icon), "Help" (with a triangle icon), and "Full Site" (with a grid icon). A small logo for the "Endangered Species Program" is visible in the bottom left corner of the app interface.

PRESCRIBE is now available for mobile devices such as smart Phones, tablets, etc.

It can be accessed at:
<http://mobile.cdpr.ca.gov/prescribe>

PRESCRIBE Mobile App

Location search

Use My Location: Easy to use, particularly for those not familiar with the Township/Range/Section (TRS) coordinates system. The program finds the corresponding County and TRS coordinates based on where your mobile device is at that moment.

The screenshot shows the 'Location' search interface of the PRESCRIBE Mobile App. At the top left is the 'CA.GOV' logo. The title 'Location' is centered in a green bar, with a 'Back' button to its right. Below the title is the 'California Department of Pesticide Regulation' logo and a 'USE SPECIFIC PRODUCTS' icon. The 'Use My Location' toggle is set to 'On'. Below this, it says 'Found the following location data.' There are three dropdown menus: 'Select a County' with 'SACRAMENTO' selected, 'Select a Township and Range' with '34M09N04E' selected, and 'Select a Section' with '36' selected. A 'Submit Location' button is at the bottom.

CA.GOV

Location Back

California Department of
Pesticide Regulation

USE SPECIFIC
PRODUCTS

Use My Location:
On

Found the following location data.

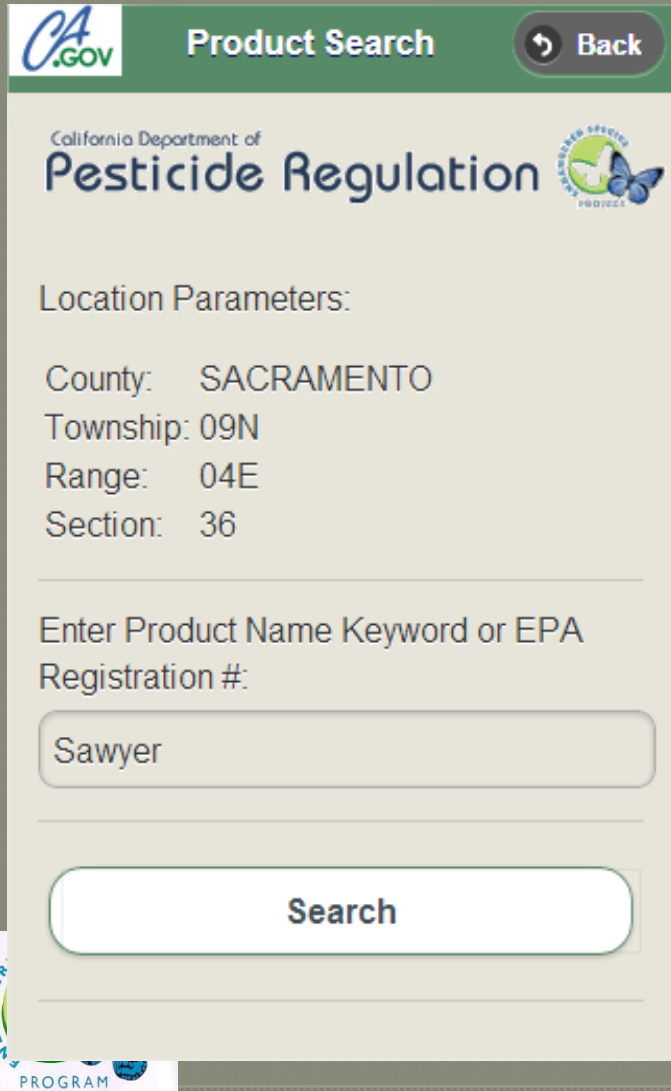
Select a County:
SACRAMENTO

Select a Township and Range:
34M09N04E

Select a Section:
36

Submit Location

PRESCRIBE Mobile App



The screenshot shows the 'Product Search' interface of the PRESCRIBE Mobile App. At the top left is the 'CA.GOV' logo. The title 'Product Search' is centered in a green bar, with a 'Back' button on the right. Below the title is the 'California Department of Pesticide Regulation' logo, which includes a butterfly icon. The 'Location Parameters' section contains four fields: 'County: SACRAMENTO', 'Township: 09N', 'Range: 04E', and 'Section: 36'. Below this is a text input field labeled 'Enter Product Name Keyword or EPA Registration #' with the word 'Sawyer' entered. A large 'Search' button is positioned below the input field. At the bottom left, there is a vertical 'DANGER' warning label and a 'PROGRAM' logo.

Product Search

- Type the product name or U.S. EPA Registration Number, then...
- Tap the “Search” button.

PRESCRIBE Mobile App



Product Results Screen

- By tapping on a product's box, a "ticker" scrolls the full name of the product or EPA Registration Number.
- By tapping in the middle of a product box we get to the full report.





For the following location:

County: SACRAMENTO
Township: 09N
Range: 04E
Section: 36

The following product has these use limits:

Product: SAWYER PERMETHRIN
TICK REPELLENT

Active Ingredients

Use Limits: 10, 15, 16, 17

Use Limits Key

10 Do not use in currently occupied habitat (se...)

15 Provide a 20-foot minimum strip of vegetatio...

16 PROGRAM

10 Conduct irrigations efficiently to prevent exce...

17 For sprayable or dust formulations: when th...

The following species are protected:

Species List

[E] CHINOOK SALM...
OOK SALMON- SACRAMENTO

[T] CHINOOK SALM...
CHINC

[T] STEELHEAD - C...
PS

Special Status Key

New Search

PRESCRIBE Mobile App

Full Report Screen

- By tapping on each box, it can be expanded.



Species Detail

Back

California Department of
Pesticide Regulation



STEELHEAD - CENTRAL VALLEY DPS



Photo by Richard T. Grost

Scientific Name

*ONCORHYNCHUS MYKISS
IRIDEUS*

Species Description

A genetically distinct and evolutionarily significant anadromous or freshwater fish related to rainbow and cutthroat trout.

General Habitat Information

POPULATIONS IN THE
CALIFORNIA AND OREGON

PRESCRIBE
Mobile App

Species Details Screen



Any Questions?



<http://www.cdpr.ca.gov/docs/endspec/index.htm>