



Groundwater Management – It's not just about Overdraft

Guiding Concept for our Water Work

Water Supply for Nature is Most Dependable if Needs of our Communities, Cities and Farms are Stable and Reliable



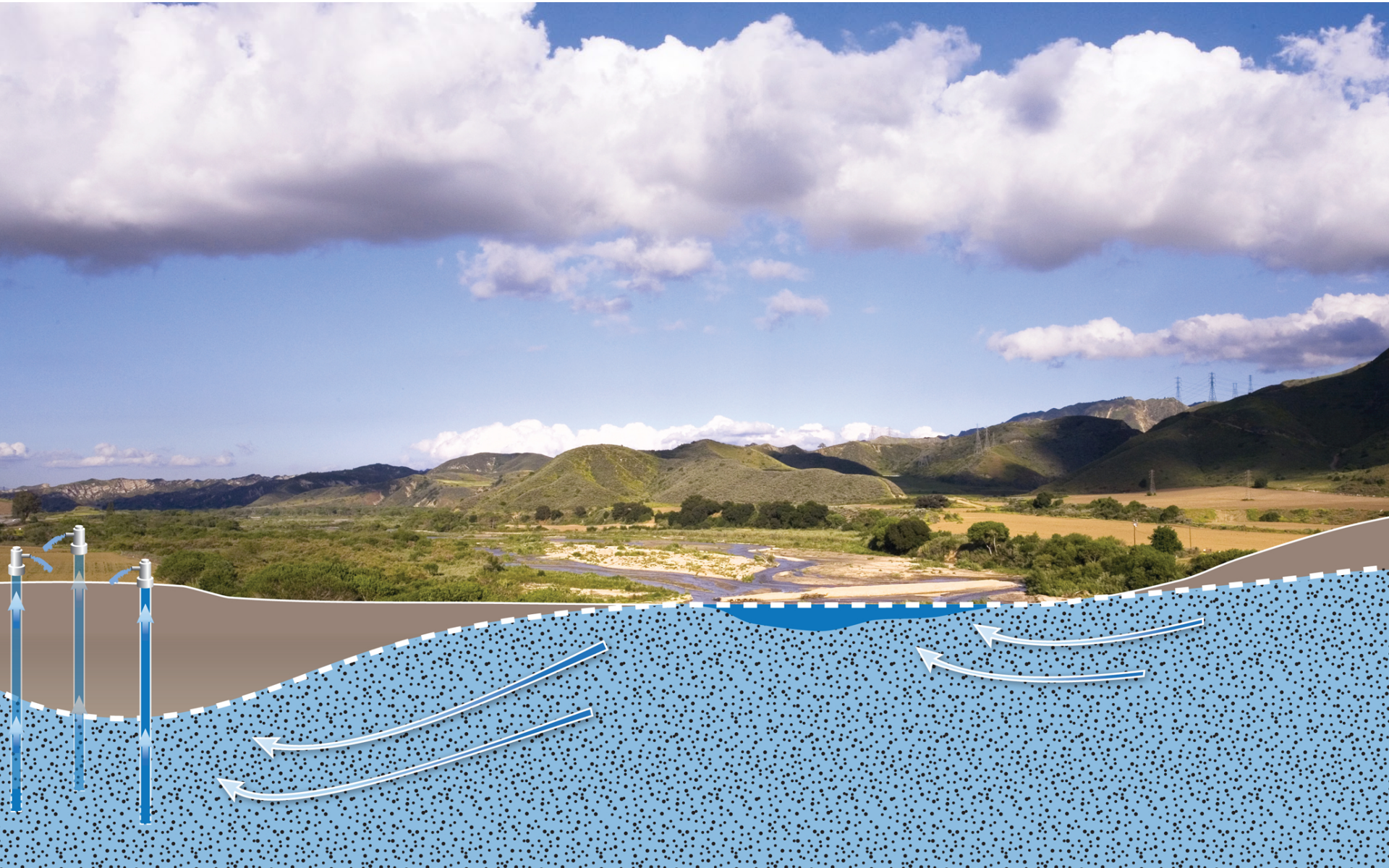
Surface Water



Groundwater and Surface Water Connected



Pumping Eventually Means Less Stream Flow



Overdraft Avoid It Where We Can

Overdraft = Groundwater Levels Getting Lower

Pumping $>$ Recharge
(Over an Extended Time)

To Stop Overdraft

1. Reduce Pumping
2. Increase Recharge

To Avoid Overdraft

- Proactively Manage
- Maintain:

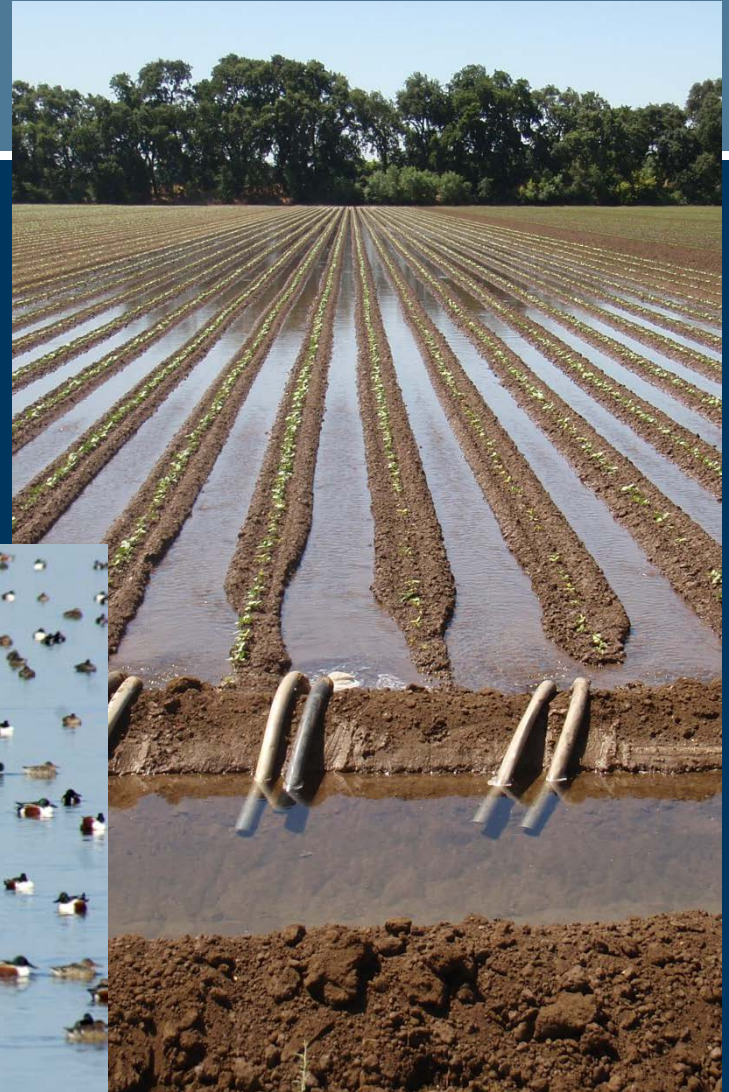
Pumping = Recharge
(Over the long term)

Not Just About Overdraft

We Need Proactive Groundwater Management to

- Halt or Avoid Overdraft and Subsidence
- Halt or Avoid Sea Water Intrusion
- **Protect Stream Flows for Fish**
- **Protect Surface Water Supplies**
- **Support Riparian Habitat**
- **Protect Drinking Water Quality**
- **Facilitate Conjunctive Use**
- **Support Groundwater Storage**
- **Allow True Integrated Water Management**

Sustainable Balance



Stopping (or Avoiding) Overdraft

Either Way Requires Proactive Management

- Understanding the Whole Water Balance
 - Groundwater Level Monitoring
 - Understand and Manage the Pumping
 - Understand and Manage the Recharge
- Not Just Groundwater
- Groundwater AND Surface Water

Sources of Recharge

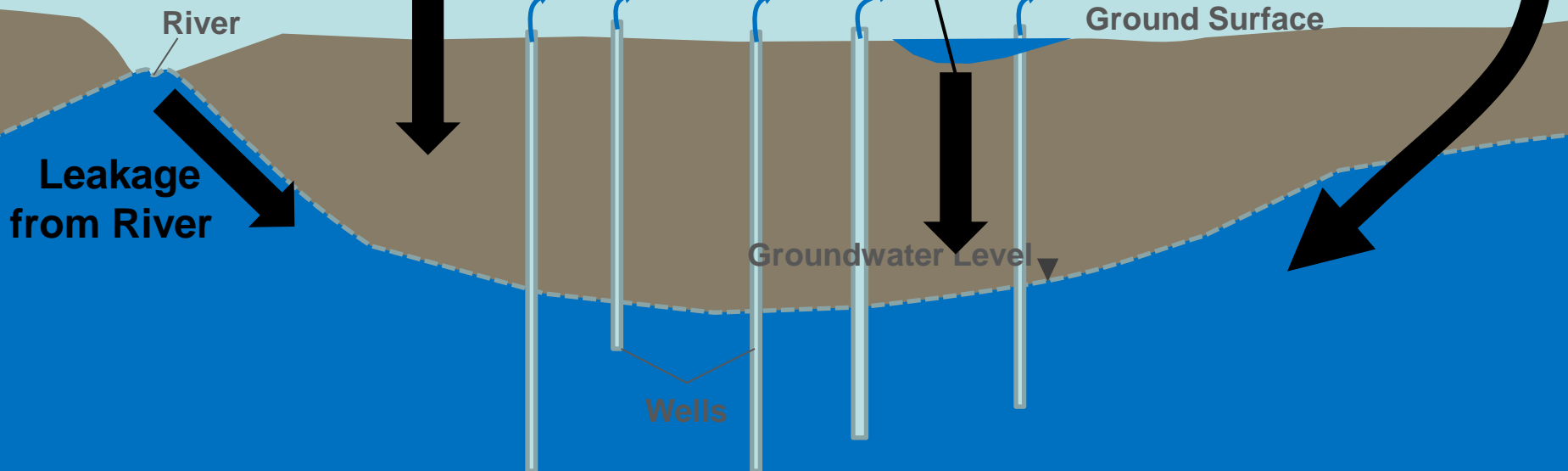


Recharge Sources

**Infiltration from Above
(Precipitation or Irrigation)**

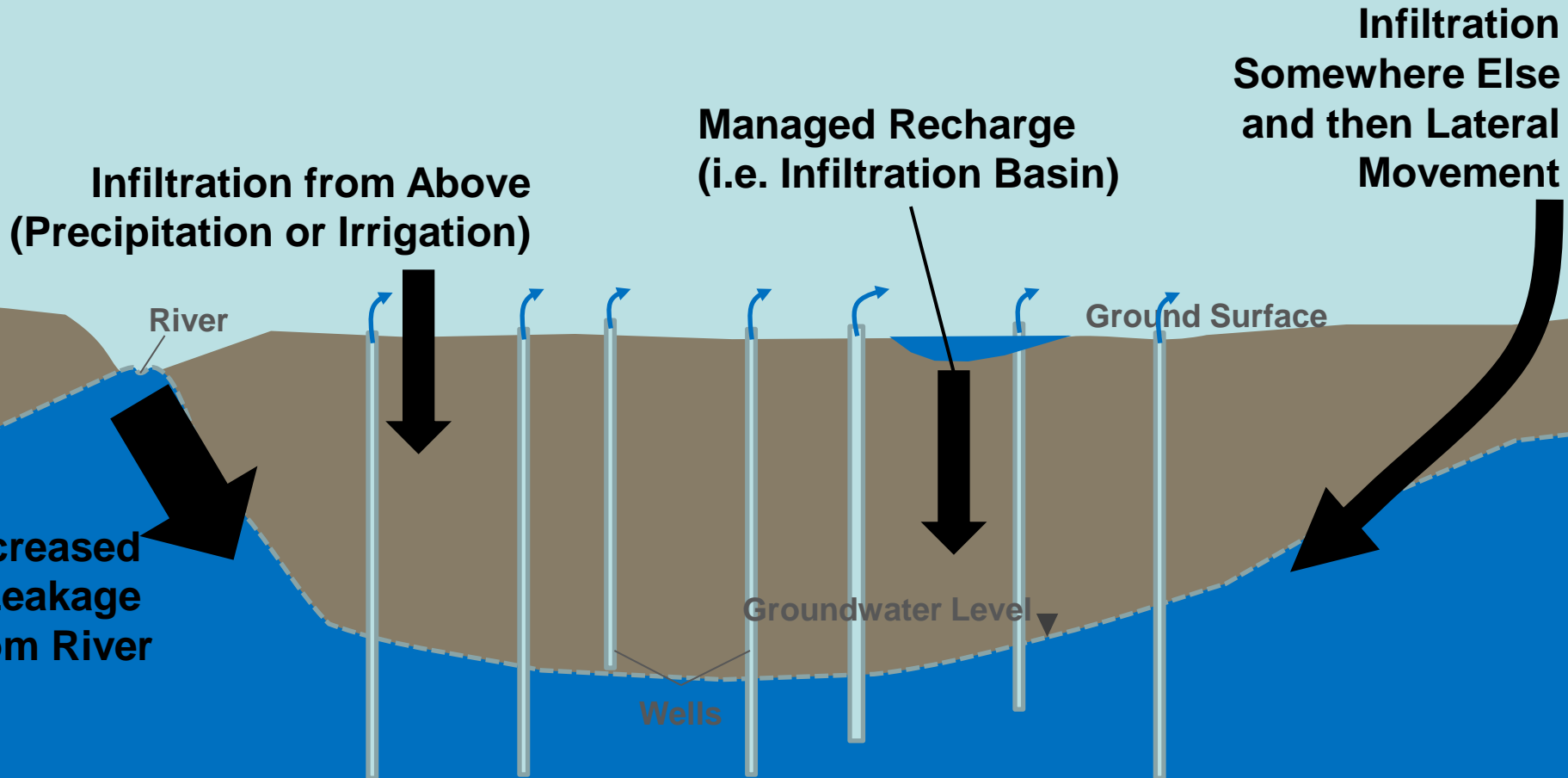
**Managed Recharge
(i.e. Infiltration Basin)**

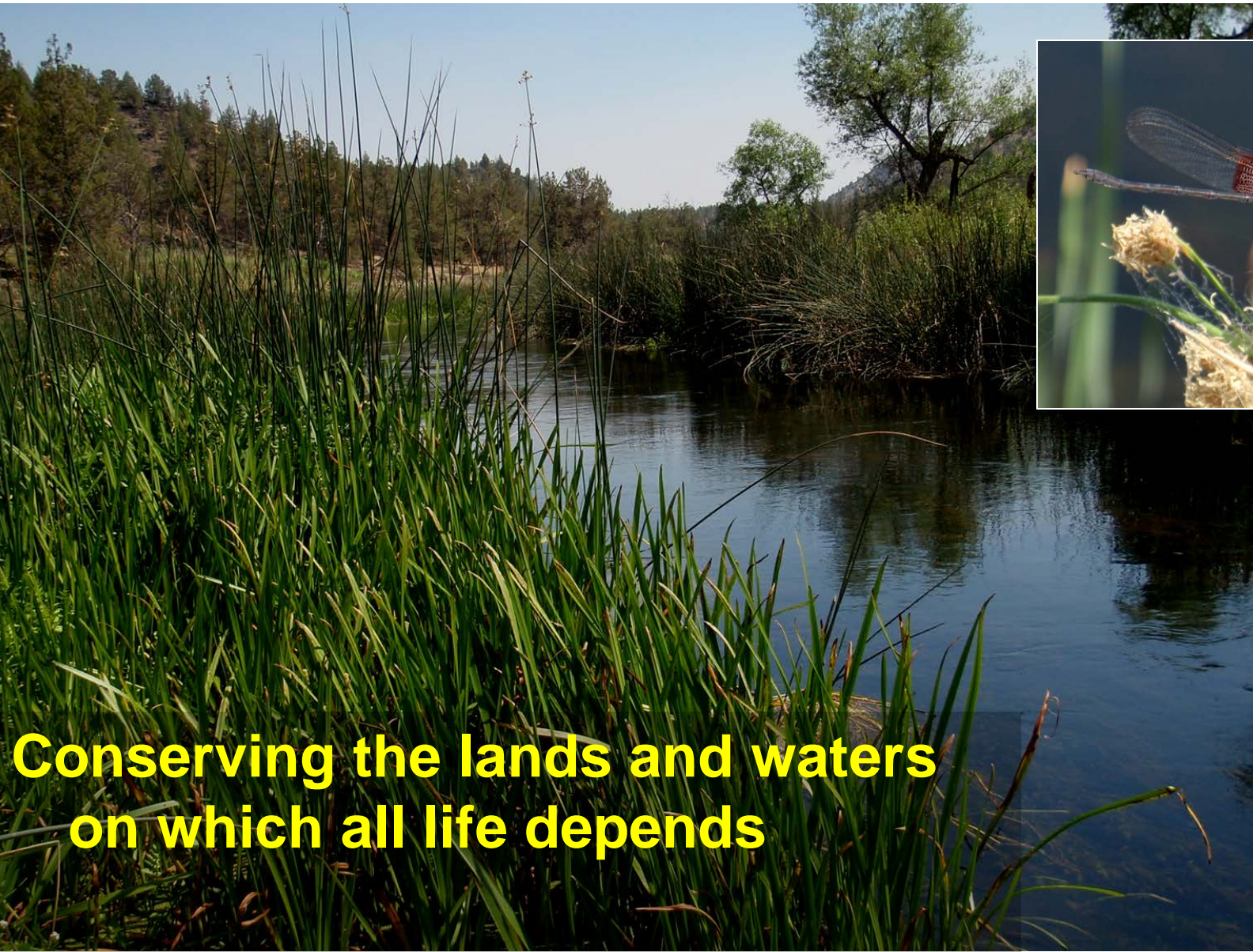
**Infiltration
Somewhere Else
and then Lateral
Movement**



Sources of Recharge

→ Recharge Sources





**Conserving the lands and waters
on which all life depends**

The Nature Conservancy's Water Program Sustainable Water for People and Nature



Solutions for
Ecosystems
Must work for People