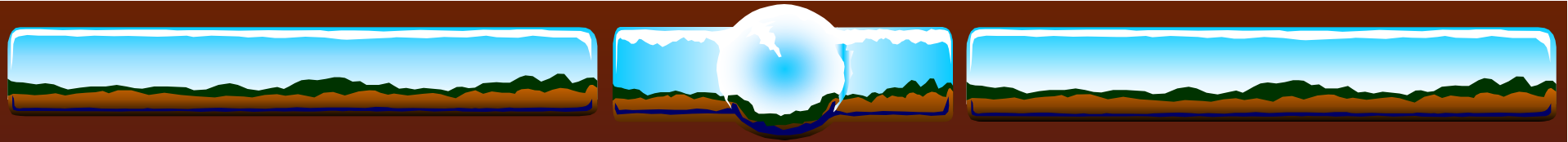


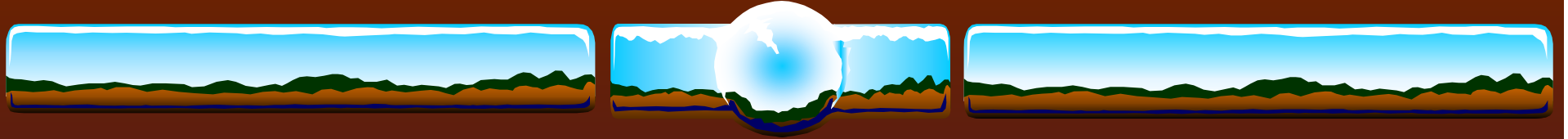
# THE EAST WALKER RIVER SPILL:

CLEANUP IN A SEVERE WINTER  
ENVIRONMENT



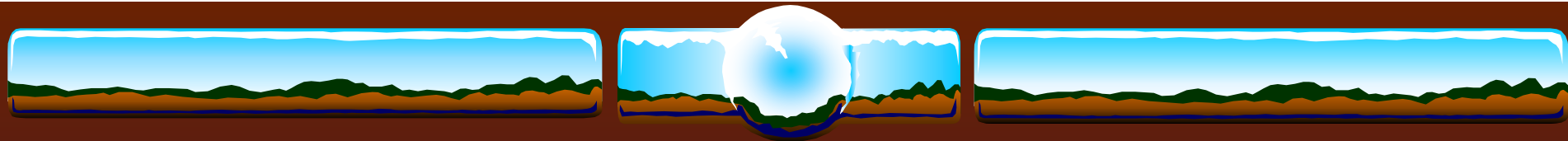
# TANK TRUCK OVERTURN

- ❖ DECEMBER 30, 2000
- ❖ ABOUT 10 MILES NE OF BRIDGEPORT, CA
- ❖ DRIVER KILLED
- ❖ SPILLED ABOUT 3,608 GALLONS OF #6 F.O.



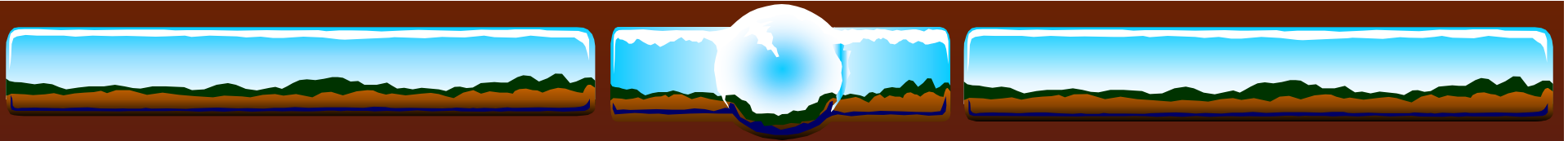
# ENVIRONMENTAL IMPACT

- ❖ 10 MILES OF RIVER
- ❖ CALIFORNIA AND NEVADA
- ❖ TROPHY BROWN AND RAINBOW TROUT FLY- FISHING DESTINATION



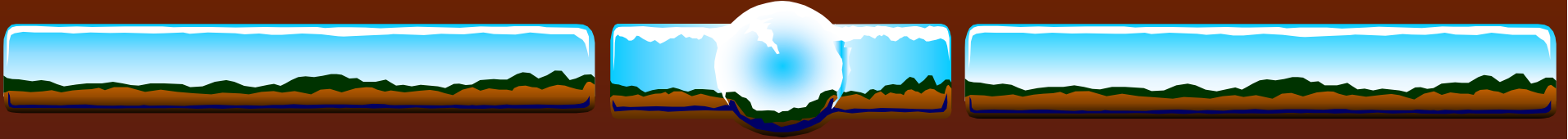
# RESPONSE ORGANIZATION

- ❖ CHP INITIAL IC
- ❖ OSPR ESTABLISHED  
UC
- ❖ INTEGRATED  
COMMAND AND  
GENERAL STAFF



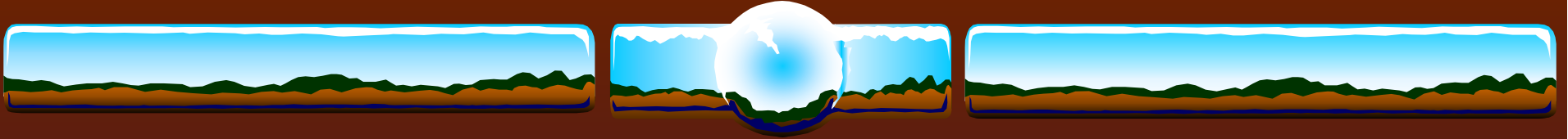
# GROSS OIL CLEANUP PHASE COMMAND & GENERAL STAFF

- |        |     |
|--------|-----|
| ❖ CHP  | IO  |
| ❖ RP   | SO  |
| ❖ RP   | OSC |
| ❖ RP   | LSC |
| ❖ OSPR | PSC |
| ❖ RP   | FSC |



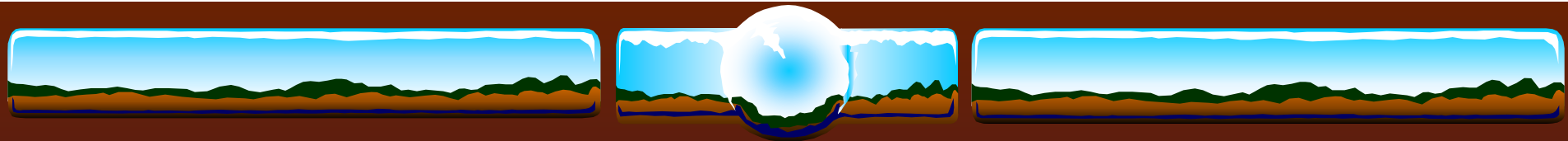
# GROSS OIL CLEANUP PHASE UNIFIED COMMAND

- ❖ CALIFORNIA DF&G  
OSPR
- ❖ NEVADA DEP
- ❖ RESPONSIBLE PARTY



# FINAL CLEANUP PHASE RESPONSE ORGANIZATION

- ❖ REMAINED THE SAME  
WITH ADDITION OF  
EPA AND/OR USCG  
PST REPRESENTATION  
IN THE UC



# COMMAND POST

- ❖ US FOREST SERVICE  
HELIPORT FACILITY  
AT BRIDGEPORT  
AIRPORT





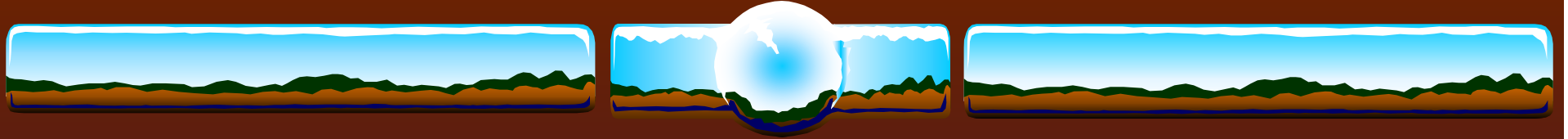
# DIVISIONS WERE

## CALIFORNIA

- ❖ DIVISION 7 (SPILL SITE)
- ❖ MURPHY POND
- ❖ STOCK BRIDGE
- ❖ MIDDLE DIVISION
- ❖ DFG RANCH DIVISION
- ❖ CULVERT DIVISION
- ❖ BORDER DIVISION

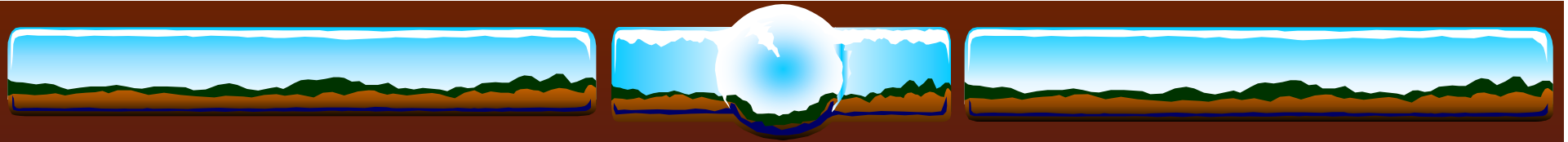
## NEVADA

- ❖ UPPER SCEIRINE RANCH DIVISION
- ❖ LOWER SCEIRINE RANCH DIVISION
- ❖ UPPER ROSASCHI RANCH DIVISION



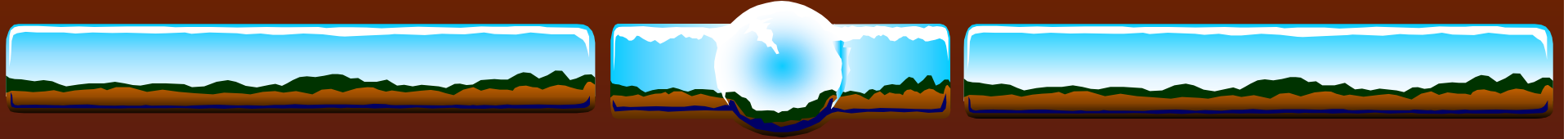
# OPERATIONS ORGANIZATION

- ❖ IMPACTED SECTION OF RIVER DIVIDED INTO 10 DIVISIONS
- ❖ DIVISIONS GIVEN GEOGRAPHICAL VICE ALPHABETICAL NAMES



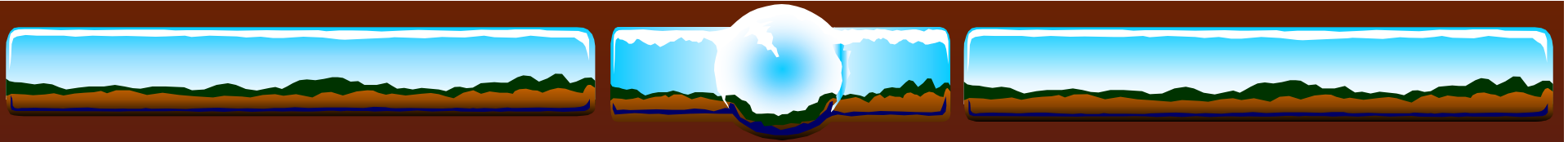
# RESPONSE SAFETY

- ❖ OIL RECOVERY HAD TO BE DONE WHILE IN STREAM.
- ❖ ACCESS TO OIL FROM BANK WAS DIFFICULT DUE TO VEGETATION, ICE AND INCLINE OF BANK



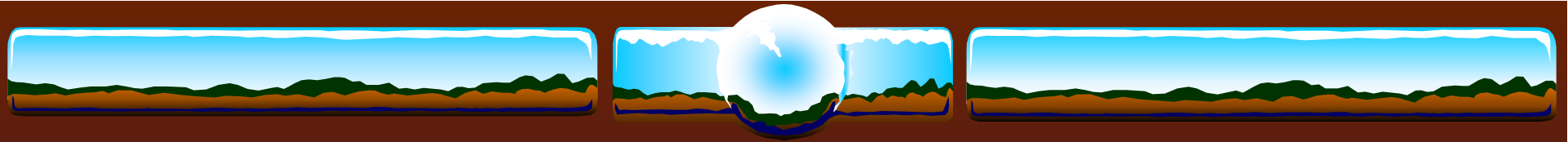
# PHYSICAL HAZARDS WERE SIGNIFICANT

- ❖ SEVERE COLD WEATHER
- ❖ ICE
- ❖ SNOW
- ❖ ROCKS AND BRUSH
- ❖ ADJACENT HIGHWAY



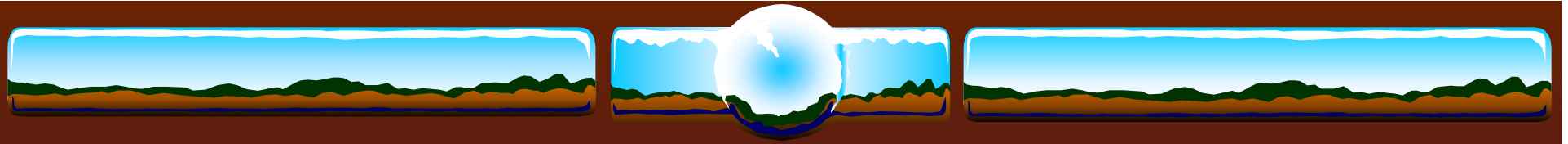
# BIOLOGICAL HAZARDS

- ❖ MOUNTAIN LIONS WERE SIGHTED SEVERAL TIMES AND TRACKS WERE COMMON OCCURANCE
- ❖ ON THE RARE WARM DAYS OBSERVED DURING THE RESPONSE, RATTLESNAKES WERE A THREAT DURING THE AFTERNOON.



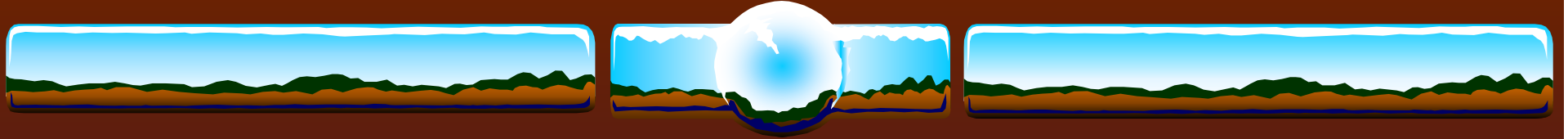
# RESPONSE SAFETY

- ❖ GREATEST HAZARD WAS COLD WEATHER
- ❖ NIGHTS AT  $-27^{\circ}\text{F}$  AND DAYS RARELY ABOVE  $32^{\circ}\text{F}$
- ❖ SNOW 1-2 FEET DEEP
- ❖ ICE COVERING THE STREAM



# RESPONSE SAFETY

- ❖ SAFETY WAS THE FIRST PRIORITY

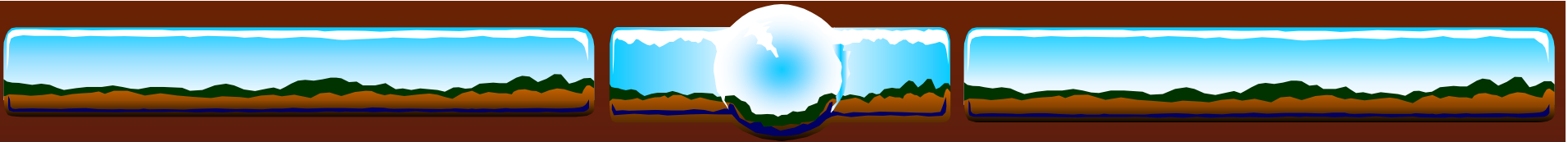


# RESPONSE PLAN

## PLAN OBJECTIVES

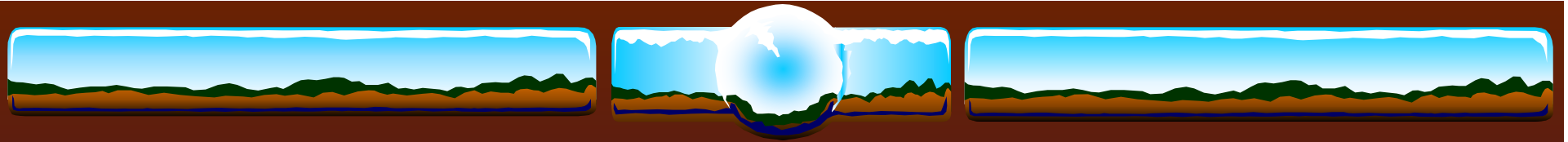
- ❖ Safety of response personnel
- ❖ Minimize downstream spread of oil
- ❖ Contain and remove oil from stream, banks and vegetation
- ❖ Regulate river water levels to extent possible





# OTHER FACTORS AFFECTING RESPONSE

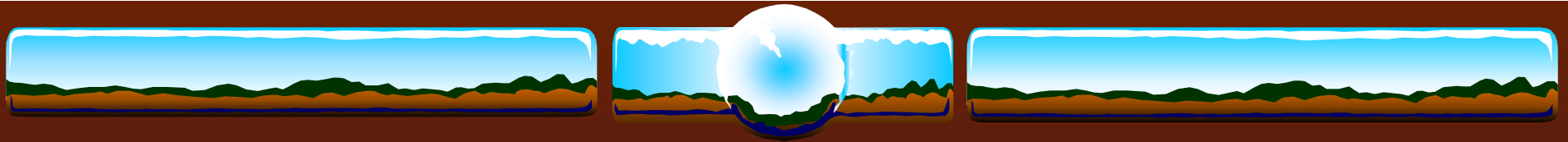
- ❖ Maintenance of mandatory water levels to prevent fish kill from river ice conditions
- ❖ Mandatory water levels for irrigation rights downstream
- ❖ Opening of California Fishing Season on East Walker River



# RESPONSE PLAN

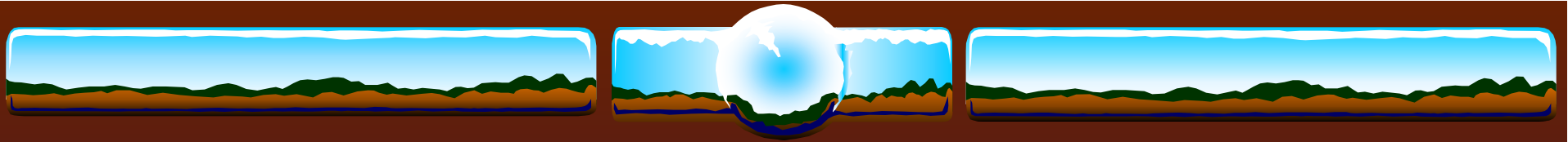
## THREE PHASE APPROACH

- ❖ Containment and Gross Oil Cleanup Phase
- ❖ Winter Maintenance Phase
- ❖ Final Cleanup Phase



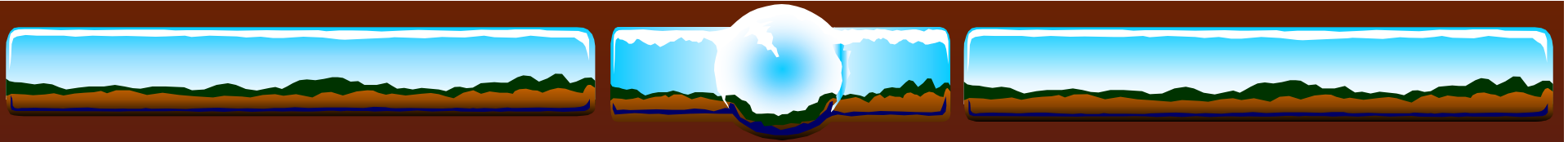
# Containment and Gross Oil Cleanup Phase

- ❖ December 31, 2000 to January 20, 2001
- ❖ Maximum Workforce of 65
- ❖ Recovered over 1500 gallons of quantified oil
- ❖ Contained the oil spill to California portion of the river. Very minor impact in Nevada
- ❖ Cleaned and for most part polished the two upper divisions



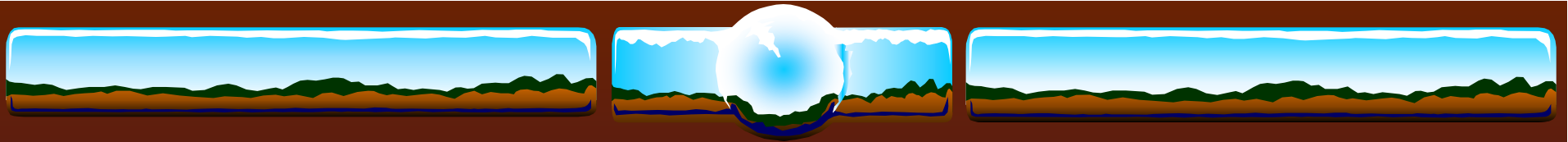
# WINTER MAINTENANCE PHASE

- ❖ January 20<sup>th</sup> to February 20<sup>th</sup>, 2001
- ❖ 5 Person Crew
- ❖ Maintain Containment Boom and Passive Filter Fence Recovery Structures built during the Gross Cleanup Phase
- ❖ Cleanup Any Free Floating Oil found During Inspection Rounds
- ❖ Observe and Report Ice Conditions to UC



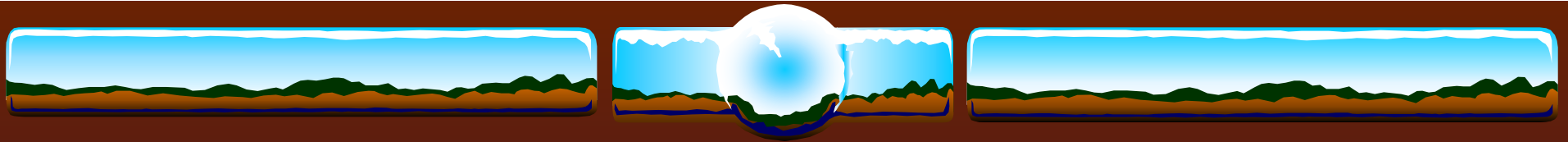
# FINAL CLEANUP PHASE

- ❖ Agency personnel conducted daily surveys and provided GPS coordinates of oil concentrations to Operations
- ❖ Program of assessment, cleaning and reassessment proved to be very efficient



# FINAL CLEANUP PHASE

- ❖ February 20<sup>th</sup> to March 29<sup>th</sup>, 2001
- ❖ Maximum of 75 response personnel
- ❖ Still hampered by winter weather conditions
- ❖ Due to ice conditions, worked from bottom up vice top down
- ❖ By March 7<sup>th</sup> Nevada and Border and Culvert Divisions were completed and ready for sign off



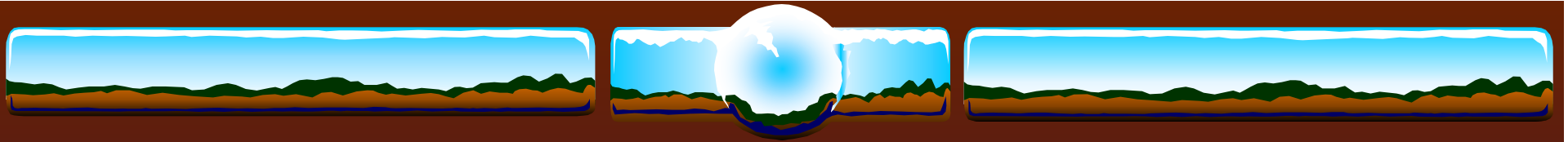
# Inspection and Sign Off Procedures

Inspection party included:

- ❖ State Natural Resource Trustee (Nevada or California)
- ❖ Federal Natural Resource Trustee
- ❖ Responsible Party
- ❖ Private Landowner, when appropriate

Inspection Criteria

- ❖ All reasonable oil removal actions were complete
- ❖ Further operations would do more harm than good



# FINAL CLEANUP PHASE

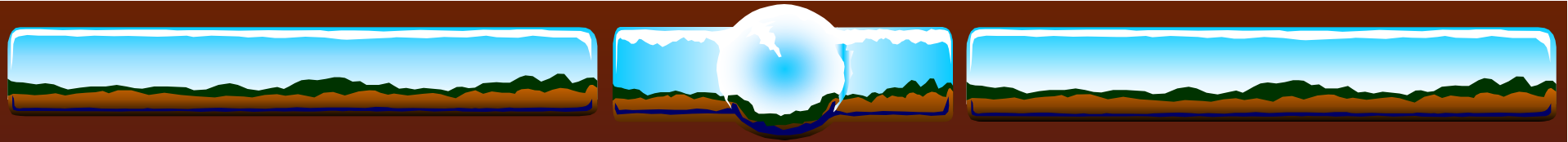
- ❖ Period of March 7<sup>th</sup> to March 14<sup>th</sup>, all activity was directed towards Stock Bridge, Middle and DFG Ranch Divisions
- ❖ This was also a period of relatively good weather





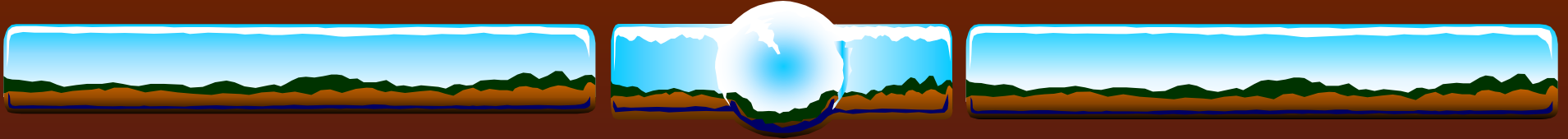
# FINAL CLEANUP PHASE

- ❖ March 14<sup>th</sup> all divisions inspected and signed off
- ❖ March 14<sup>th</sup> to March 19<sup>th</sup>  
Crews prepared for river flows increase
- ❖ March 19<sup>th</sup>, Walker River Irrigation District increased river flow from 20cfs to 84 cfs
- ❖ Only minor sheening observed



# FINAL CLEANUP PHASE

- ❖ March 24<sup>th</sup>, UC was confident that no pockets of undiscovered oil remained and crew removed all remaining passive collection and recovery equipment.
- ❖ March 29<sup>th</sup>, UC released RP from further cleanup



# LESSONS LEARNED AND RECOMMENDATIONS

- ❖ Pre-spill equipment deployment sites would have been useful. Information gained from this spill should be documented in the RCP and/or ACP.
- ❖ Daily freezing and thawing causes river to rise and fall. This fluctuation causes oil to become encapsulated in the ice.
- ❖ Placing oil snare (pom-pom) on the ice will allow the snare to trap oil as the ice melts and the stream opens up. Snare is the preferred sorbent material for heavy oil and cold weather conditions
- ❖ Use of GPS is an especially useful tool for locating and relocating oil impact conditions.