

OHV Use and Management on Public Lands

Western Regional Cooperative Soil Survey Conference
Western Society of Soil Science
Professional Soil Scientists Association of California
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OHV Activities

Administration

Grant Writing

Planning (NEPA/CEQA)

Layout and Design

Equipment Acquisition

Operations & Maintenance

Maps and Signs

Law Enforcement

Water Quality Compliance

Monitoring

Reroutes

Restoration & Rehabilitation

Wet Weather Management

Volunteer Management

Education

Public Meetings

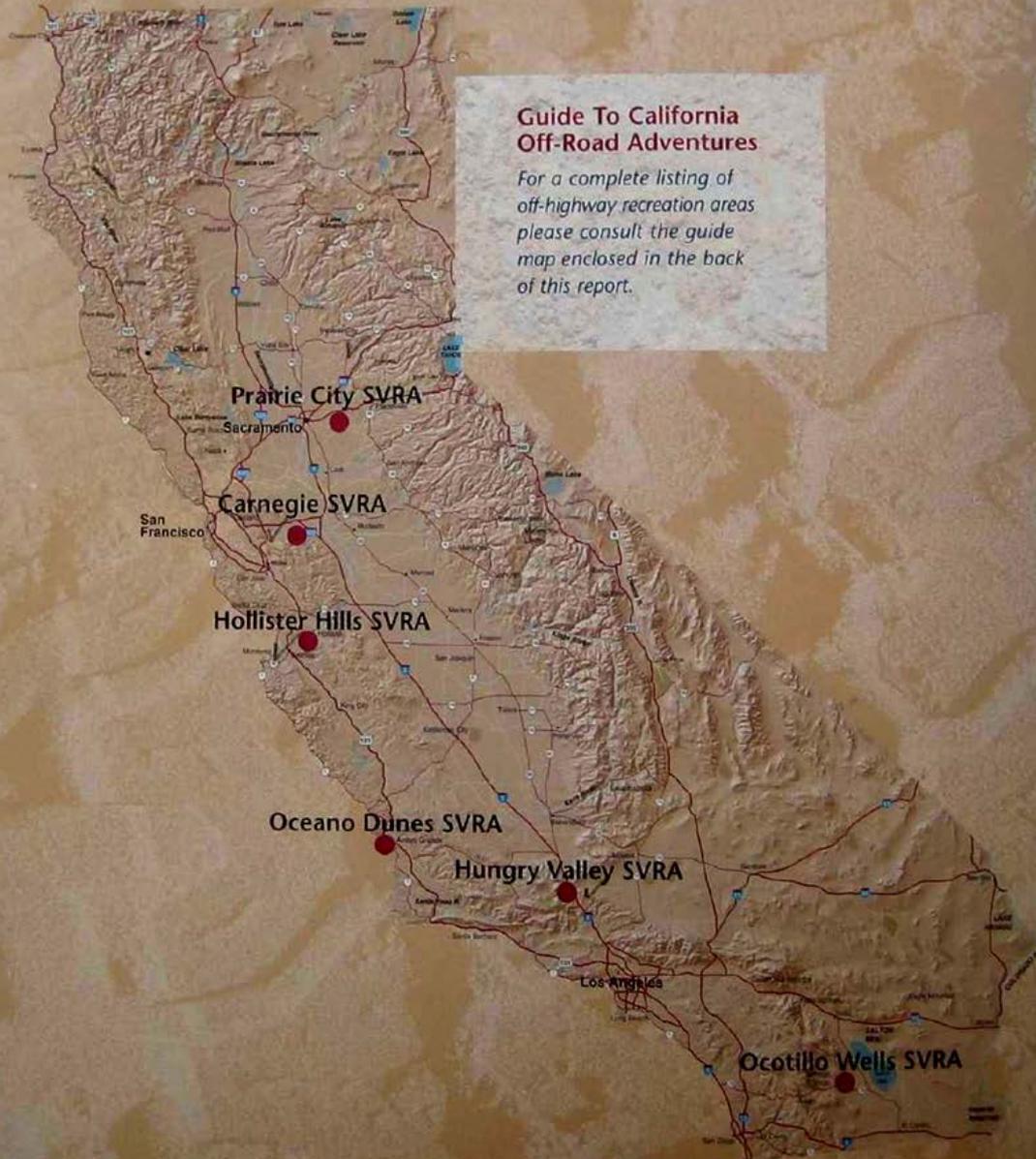
Facilities

Special Events

State Vehicle Recreation Areas

Guide To California Off-Road Adventures

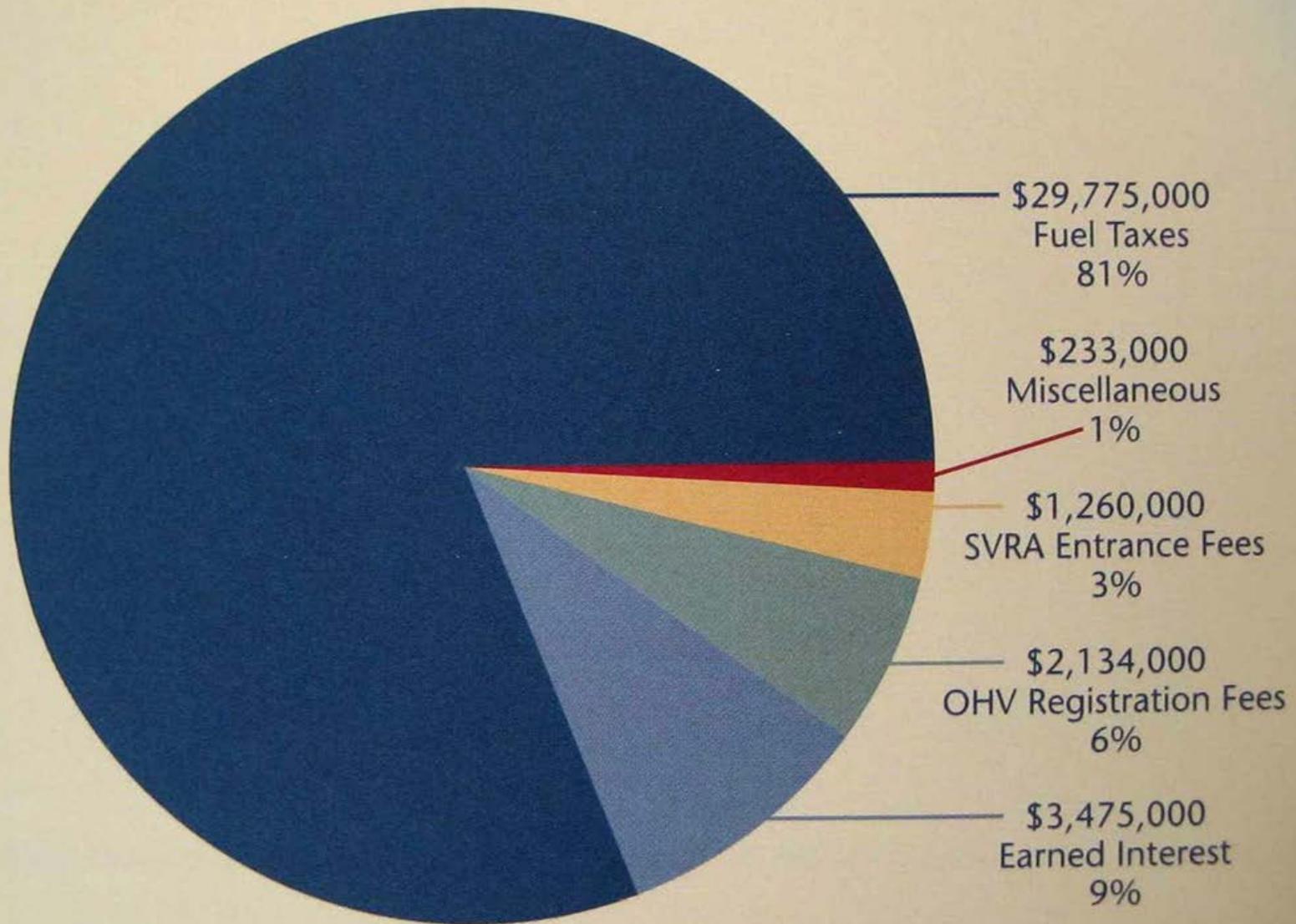
*For a complete listing of
off-highway recreation areas
please consult the guide
map enclosed in the back
of this report.*



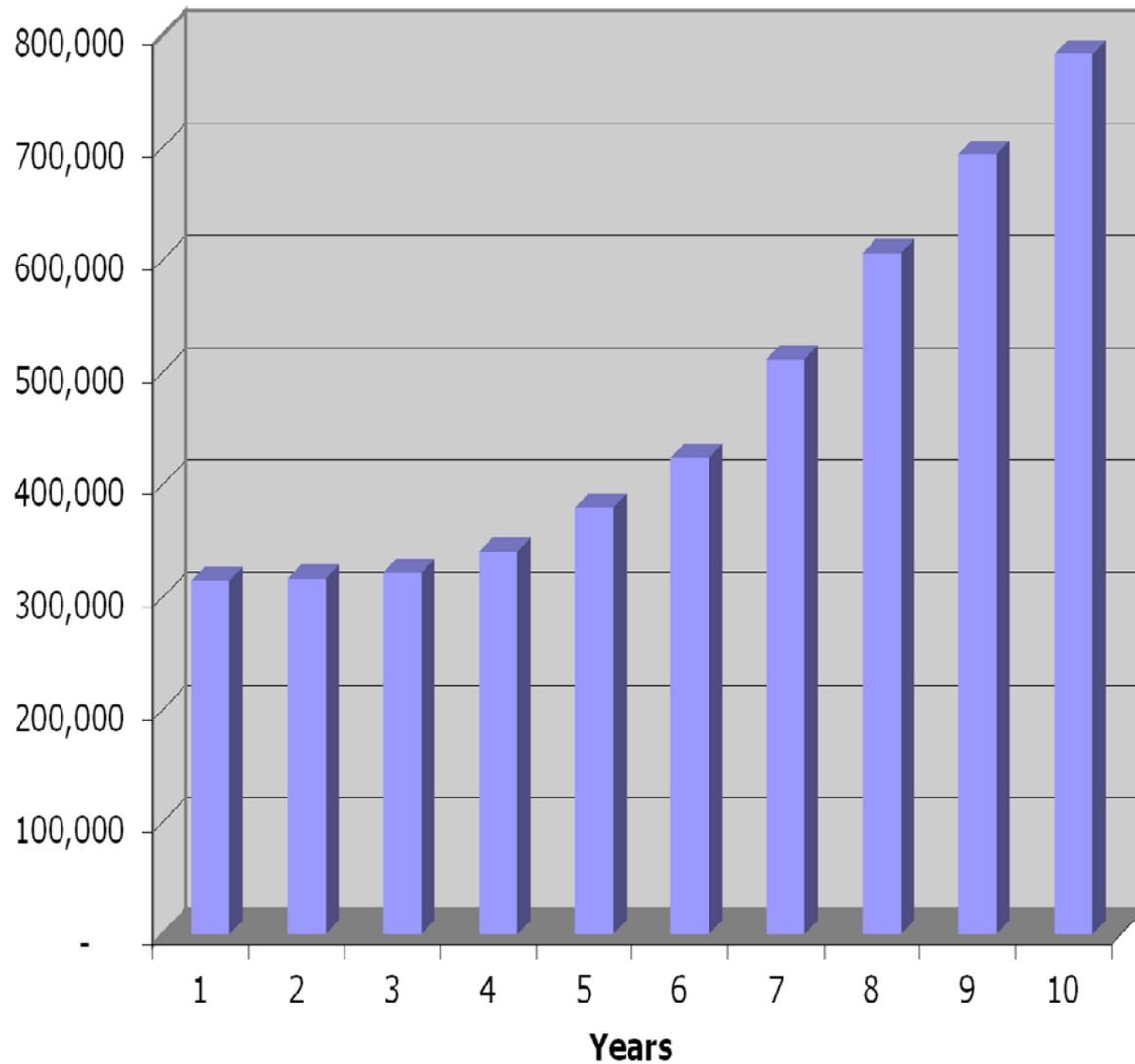
Federal and Local Grant Areas



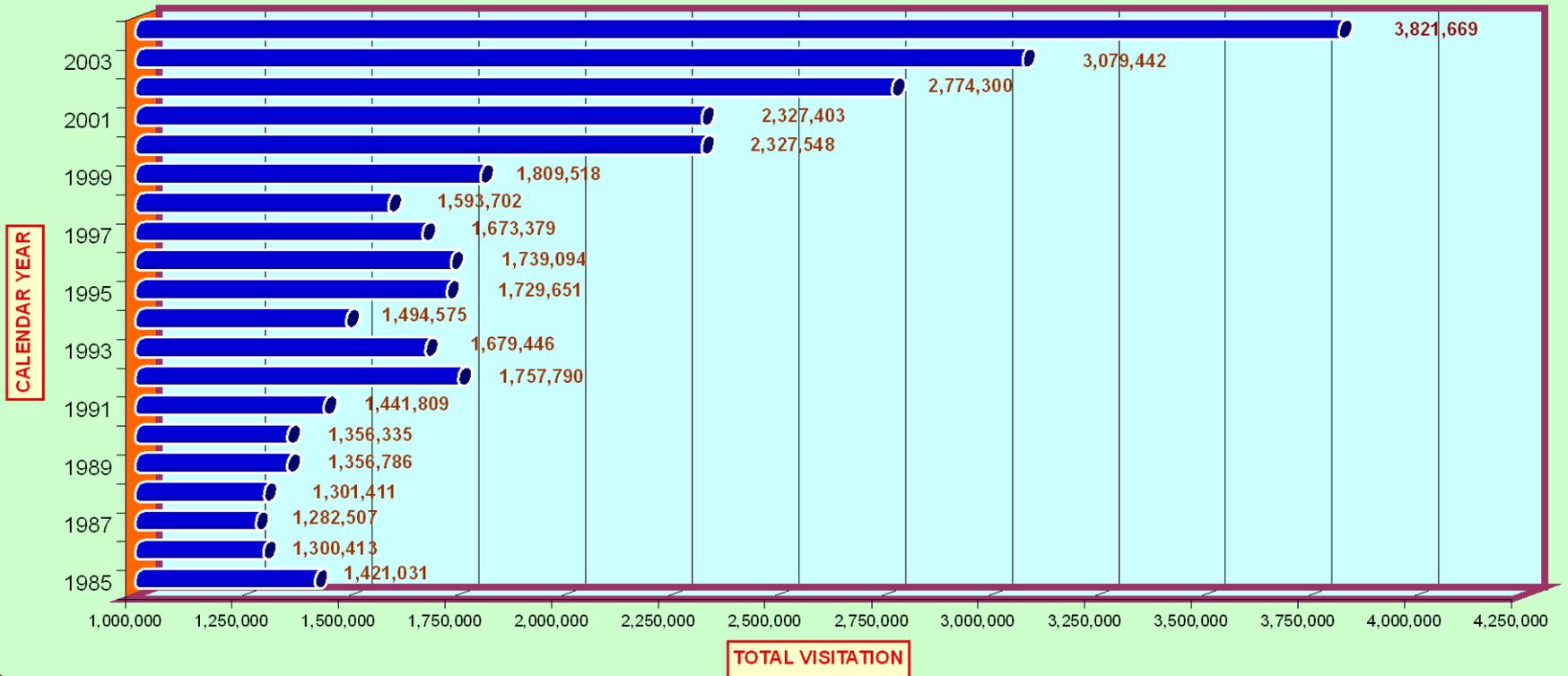
OHV TRUST FUND INCOME SOURCES (FY 1999-2000)



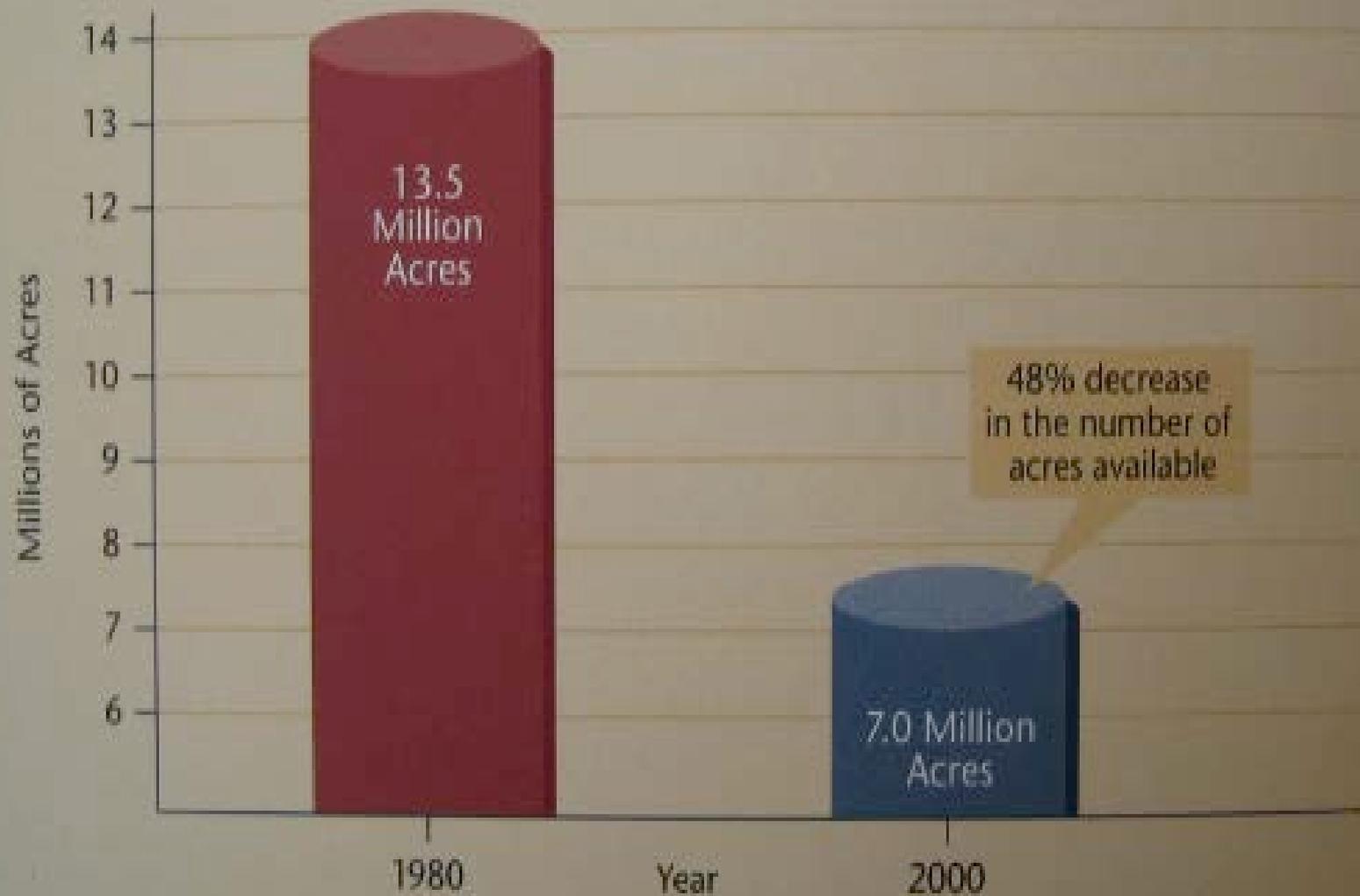
M/C + ATV Registrations 1996 - 2005



State Vehicular Recreation Areas STATEWIDE VISITATION by CALENDAR YEAR



ACRES AVAILABLE TO GREEN STICKER VEHICLES IN THE CALIFORNIA DESERT



Sustainable Recreation Experience

- On-site impacts (loss of tread)
- Off-site impacts (water quality)
- Other off-site impacts

Drawing not to scale
Gradient is Exaggerated

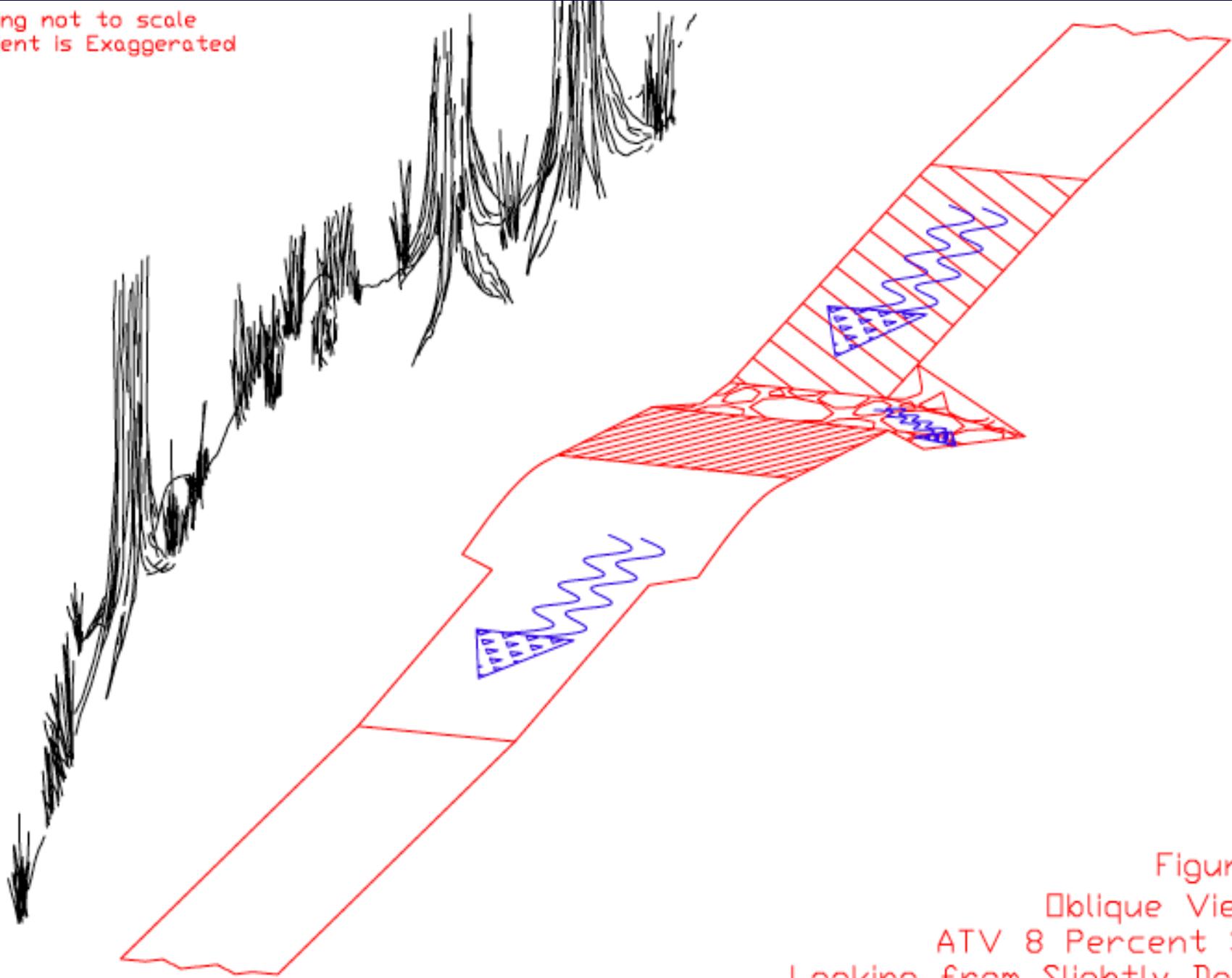
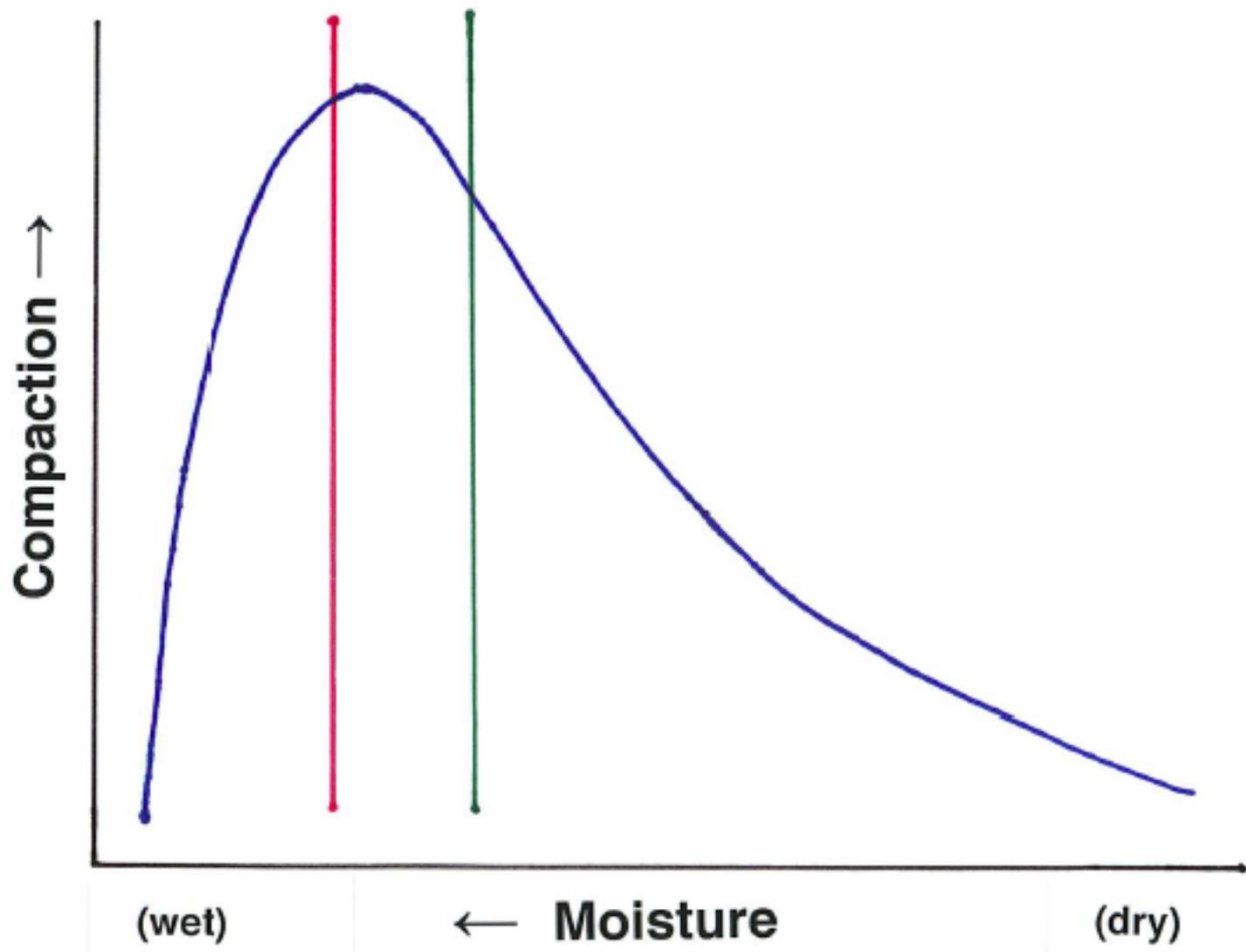


Figure 1B
Oblique View of
ATV 8 Percent Slope
Looking from Slightly Downhill
and to the Side

Wet Weather Management

- Damage to treads and drainage structures
- Traffic on moist soils is beneficial
- Transition from benefit to damage is abrupt

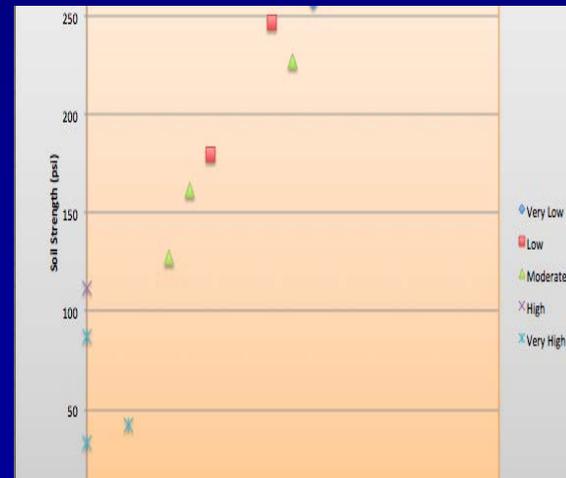


Precipitation Based Closures

- Off-site measurements
- Net work of gauges too coarse
- Indirect measure of soil moisture
- Canopy interception, runoff, concentration
- Antecedent moisture, drying conditions
- Lost benefits of compaction
- Lost riding opportunities

An Alternative: Trafficability

- Site-specific
- Empirical
- Soil Strength
- Soil Moisture
- Observed Damage
- Evidence-based





Moisture Meter **HH150**

Mineral
40.8%vol

read off - menu

AT ONYX DEVICES
CHESAPEAKE, VA, USA

SM LWS

Observed Condition

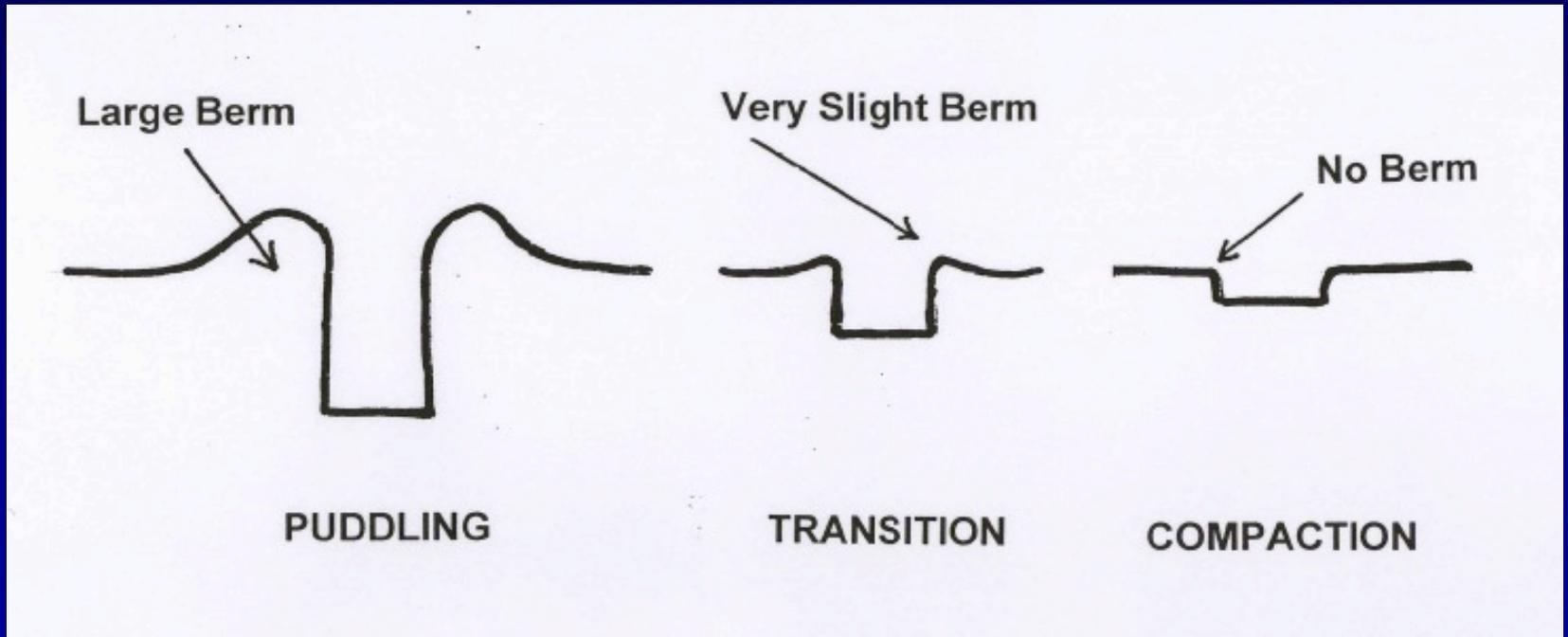


Table 1. Threshold Values of Soil Moisture and Soil Strength for the SHMUT¹

Soil Type	Deep Sands	Sand over Clay	Clay
Soil Moisture Content (% by volume)	38.0	40.0	42.0
Soil Moisture Tension (cb)	5.0	6.0	7.0
Soil Strength (psi or C.I.)	150		
Soil Strength (deflection)*	460		

* Deflection values are provided for using the Humboldt H4204 proving ring cone penetrometer equipped with a 0.5-inch tip.

Meeting the Threshold

- Five benchmarks
- Four of five meet
- Average of five readings
- Moisture content
- Soil strength

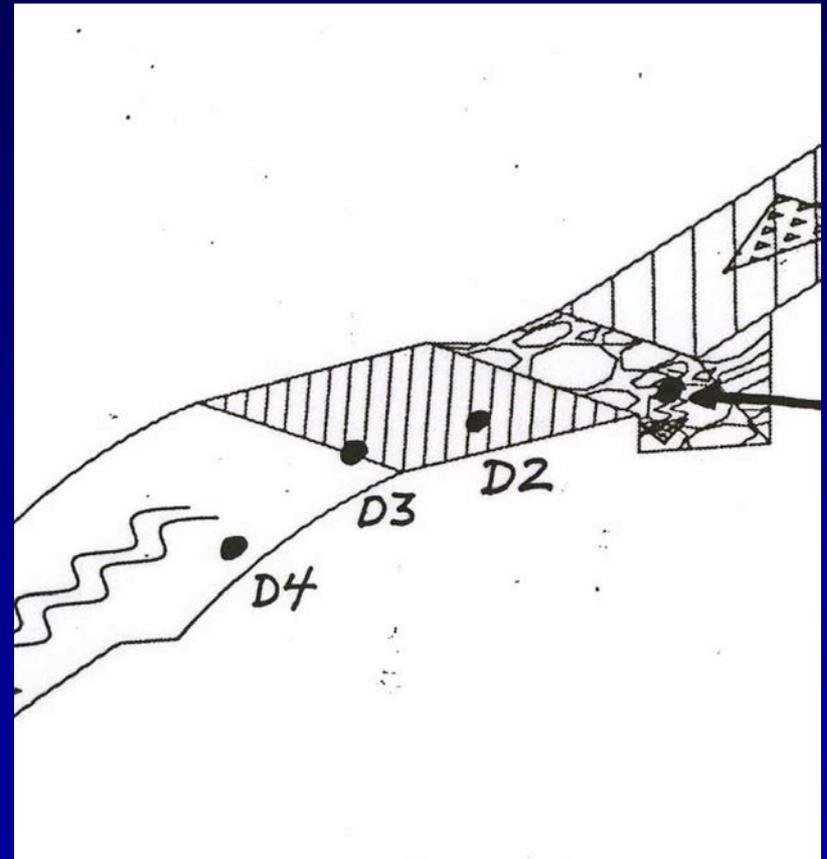
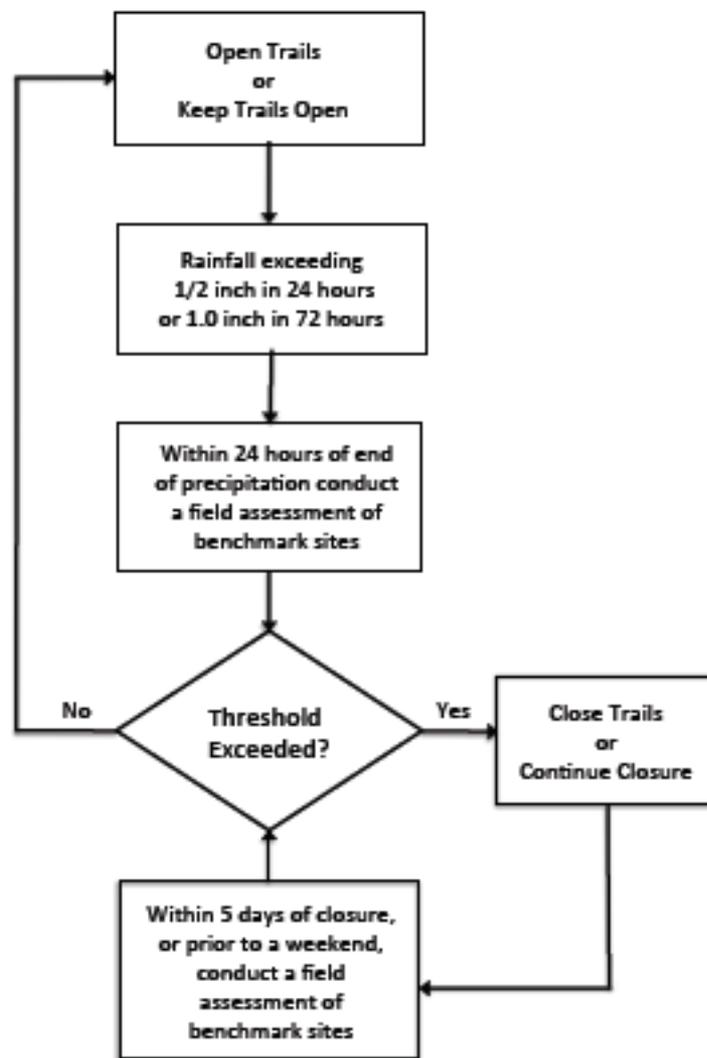


Figure 2. Decision Tree for SHMUT Trail Closures



Other OHV Activities

- BMPs for Water Quality Compliance
- Monitoring Trail Condition
 - To prioritize and schedule maintenance
 - For long-term trends and interpretations
- Custom interpretations
- Use of soil survey

- Questions?



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