# **APPENDIX B: Carmel Metadata April 2004**

The accompanying CD-Rom with contains the following layers, a list of their sources, and any changes made to these layers during the course of making the five maps published as Appendix A of this report.

The Watershed Institute, by request of Monterey County, has supplied CRWC with a copy of the CD-ROM "Geology Resources and Constraints Monterey County California" compiled by Lewis Rosenberg, 2001. These data were made available for this mapping project by permission of Mr. Rosenberg and Monterey County. For additional copies of the CD, write to Monterey County 21st Century Program/General Plan Update, 230 Church Street Building 3, Salinas, California 93902.

Arc Data Layer	Source of Data	Original	Edited for
CRWFinalSubBasins	CCoWS created 2003	Metadata inc n/a	maps? Yes
Mntroads	gis.ca.gov	Yes	No
CRW_hiways	CCC WATER data set	No	Yes
CarmelDamsLagoons	CRW_streams_full	N/a	Yes
CarmelRiverMainstem	CRW_streams_full set	N/a	Yes
CRW_streams_full	CCC WATER data set*	N/a	Yes
MoCo_veg_	California Fish and Game	Yes	Yes
CarmelExtract	And USFS		
GEOLOGY	Monterey County	Yes	No
SSURGO_soils_extrct	CCC WATER data set	Yes	Yes
CRW_dem.tif	USGS Seamless	See below	Yes
CRW_ShadedRelief.tif	CCoWS created 2003	See below	Yes
CA_counties	CCC WATER data set	Yes	No
CRW_OceanOutline	CCoWS created 2003	No	Yes
Distbndy103003	MPWMD	Yes	No
RegionsConcern	CCoWS created 2004	N/a	Yes

# **Edited Layers Description**

## **CRWFinalSubBasins**

This layer was created from the DEM by running a process in TNTMips called "watershed". This process calculates the pour points, ridges, basins, and stream routing from elevation data. The basins layer was cleaned of unnecessary

artifacts through a basic edit, then refined by Doug Smith on the basis of similarities of landscape and stream characteristics. Final spatial edits and addition of attributes of sub-basin names, and area (km²)(calculated by TNTMips) were completed for the final layer. Original layer was UTMZone10NAD83.

# CRW hiways

Edited by geographic extents from California Highways layer. This layer was probably derived from US TIGER files. Similar files to this can be found at: http://gis.ca.gov/casil/gis.ca.gov/tiger2k/. Original layer was UTMZone10NAD83 projection.

# CarmelDamsLagoons and CarmelRiverMainstem

Both extracted from full streams layer. CarmelRiverMainStem and dams from CarmelDamsLagoons are extractions from the full streams layer and were extracted for ease of map making. The Carmel lagoon shape was edited to reflect the shape of the current full lagoon per client request. Original layer was UTMZone10NAD83 projection.

# CRW\_streams\_full

This layer was extracted to the map extents, and Carmel River edited to remove the braided portions in mid-river per client request. The Carmel lagoon shape was edited to reflect the shape of the current full lagoon per client request. Original layer was UTMZone10NAD83 projection. Metadata was not available on the California Coastal Commission WATER dataset website (<a href="http://www.centralcoastdata.org/">http://www.centralcoastdata.org/</a> (under Downloads/WATER)). Spatial accuracy is unknown. Original source was probably EPA RF3 data, now superceded by the USGS National Hydrography dataset. (<a href="http://nhd.usgs.gov/">http://nhd.usgs.gov/</a>)

# MoCo\_veg\_CarmelExtract

Multi-source Land Cover Data (v02\_2) was created by California Department of Forestry and Fire Protection. The full Monterey County layer is called MoCo\_cveg97\_1\_27 and was downloaded from the FRAP website (http://frap.cdf.ca.gov/data/frapgisdata/select.asp). Vegetation attribute selected for mapping is "WHRTYPE". Layer shown on map was extracted to the watershed boundary. Original layer was Albers Equal Area projection:

```
PROJCS["Custom",
GEOGCS["GCS_North_American_1927",
DATUM["D_North_American_1927",
SPHEROID["Clarke_1866",6378206.4,294.9786982]],
PRIMEM["Greenwich",0],
UNIT["Degree",0.0174532925199433]],
PROJECTION["Albers"],
PARAMETER["False_Easting",0],
```

```
PARAMETER["False_Northing",-4000000],
PARAMETER["Central_Meridian",-120],
PARAMETER["Standard_Parallel_1",34],
PARAMETER["Standard_Parallel_2",40.5],
UNIT["Meter",1]]
```

# SSURGO soils extrct

Extracted from Monterey County soils survey. Attribute shown in map is "COMPNAME". Layer shown on map was extracted to the watershed boundary. No metadata was available from the WATER dataset website, so metadata included is from the National Resources Conservation Service download site: <a href="http://soils.usda.gov/gallery/state\_soils/">http://soils.usda.gov/gallery/state\_soils/</a>. Original layer was UTMZone10NAD83 projection.

# CRW dem.tif

This dem is in .tif format for transparent coloration of the shaded relief only. It is extracted to the map extents from the USGS seamless DEM available at <a href="http://seamless.usgs.gov/">http://seamless.usgs.gov/</a>. The original downloaded files in GCSNAD83 projection are supplied on this CD-ROM.

# CRW ShadedRelief.tif

Created by processing a DEM in TNTMips software. The DEM used was the CCoWS 30-meter DEM created for a Land Use Mapping project for SWRCB in 2003. The DEM was assembled from 7.5 minute DEMs and mosaicked by Tarsier through software written by Fred Watson. The following is a reference to the report that explains how it was created:

WI-2003-03: Report: Newman, W., Watson, F., Angelo, M., Casagrande, J., & Feikert, B. Land use history and mapping in California's Central Coast region. Original layer was UTMZone10WGS84 projection. It is extracted to the map extents. Color table selected for aesthetics in the map. Original layer was UTMZone10WGS84 projection.

# CRW\_OceanOutline

This layer was created for the purpose of masking the ocean and having greater control over ocean color during the map-making process. It was derived from creating a binary raster of the shaded relief, and then a conversion of the binary raster to a vector was performed. The polygon of the ocean was edited to the extents of the map, and exported as a shape file. All processing for this was performed using TNTMips. Original layer was UTMZone10WGS84 projection.

# RegionsConcern

This was created to show areas of concern in the watershed. It is based on the shaded relief and was derived from notes by Doug Smith and edited by Wendi Newman.

All layers were re-projected for CRWC to State Plane, Zone 4, NAD83 feet.

# **Map Creation Process**

Maps were produced by first using a GIS program to create the 34" by 34" basic map. Once this image was produced, it was inserted into a PowerPoint slide set to the dimensions of the poster. All labeling and graphic additions were performed in PowerPoint. Each poster was then made into an Abobe Acrobat .pdf document for the final archive.

Posters were printed on an HP 800 plotter using PosterJet Raster Image Processing software. The posters were printed on HP High Gloss Photo paper for high quality and durability. All files used in the poster creation process are located on the final CD-ROM.

These maps and data were developed by the Foundation of CSUMB for uses beneficial to the Carmel River Watershed Council and the Carmel River Watershed Conservancy. While the Foundation of CSUMB believes the information to be reliable and made efforts to assure its reliability at the time the information was compiled, the information is provided "as is". The State of California, the Foundation of CSUMB and the Watershed Institute are not responsible for the accuracy, completeness, quality or legal sufficiency of the information. Any expressed or implied warranties, including, but not limited to, the implied warranties of merchantability and fitness for purpose ARE SPECIFICALLY DISCLAIMED. Neither the Foundation of CSUMB, Watershed Institute, nor the State of California shall be held liable for any direct. indirect, incidental, special, exemplary or consequential damages (including, but not limited to: procurement of substitute goods or services; loss of use, data or profits; or business interruption), however caused and on any theory of liability, whether in contract, strict liability or tort, arising in any way out of the use of this information. This disclaimer applies to use of the information alone and to its aggregate use with other information, data or programs.

# Metadata Records

MntRoads metadata from http://gis.ca.gov/catalog/BrowseRecord.epl

Identifier: roads

**Citation Information** 

Title: Roads

Originator: California Department of Fish and Game

Edition: 2002

Publication 2002-09

Date:

Information Computer file Format: Resource

Type:

Details:

Other Citation This is NAD 27 datum in Albers projection.

**Identification Information** 

Content:

Abstract: The roads layer contains several classes of transportation

> features including jeep trails, city streets, thoroughfares, unpaved roads, state highways, and interstates. Some of the data is 20 years old; therefore, care should be taken when using data from areas that have grown in recent years. The currency of the State highway system (those for which Caltrans has responsibility) is very good, having been updated in 1993. The data can be very dense in highly urbanized counties. Los Angeles County has over

200,000 arcs.

Purpose:

Supplemental

Info:

Start: 1997-01-01 End: 0000-00-00 Time Period:

Currentness: Publication Date

Progress: Complete

Update

Annually

Frequency

Box: California Place Name Bounding of Places:

Other Place Names: California

Geographic West: -124.0000 East: -114.0000 North: 42.0000 South:

32.0000 Region:

Themes: Transportation Networks and Models, Roads,

No Restrictions Access

**Limitations**:

<u>Use</u>

No Redistribution

Limitations:

Data Contact: Metadata Administrator

**Distribution Information** 

Online Link: <a href="http://gis.ca.gov/casil/gis.ca.gov/teale/roads/">http://gis.ca.gov/casil/gis.ca.gov/teale/roads/</a>

**Metadata Information** 

<u>Date</u>: 0000-00-00

Metadata Contact

**Metadata Administrator** 

Metadata Standard:

## Landcover Metadata Record

Dublin Core Standard

LCMMP, Vegetation Data Title:

Catalog Name: California Department of Forestry and Fire

Protection

548 OID:

CITATION INFORMATION

Identifier: cveg

Title: LCMMP, Vegetation Data

California Department of Forestry and Fire Originator:

Protection

& USFS

Publication Date: 2003 Information Resource Type

Computer file

Geographic information system

Formac.
Content: 2.5 acre mmu

Other Citation Details: Map projection is Albers Equal Area, NAD27

IDENTIFICATION INFORMATION

Abstract: Vegetation data consistent across all ownerships is

critical for assessing current conditions, monitoring

changes over time, and determining management options.

The USDA Forest Service Region 5 Remote Sensing Lab

and the California Department of Forestry and Fire

Protection's Fire and Resource Assessment Program

(FRAP) conduct cooperative vegetation mapping and

monitoring in order to address these issues. This

project has not only created vegetation and change

detection data for much of California's forest and

range lands, but has facilitated the establishment of

protocols for joint data collection, common mapping

standards, and basic interpretations across

classification systems. Please visit our website for

more details at http://frap.cdf.ca.gov/projects/

land cover/index.html

Browse Graphic URL: http://frap.cdf.ca.gov/data/browsegraphic/cveg.gif

Purpose: Vegetation data consistent across all ownerships is

critical for assessing current conditions, monitoring

changes over time, and determining management options.

Vegetation polygons were derived from LANDSAT TM

imagery. Each polygon is assigned a Wildlife Habitat

Relationships (WHR) and CALVEG species, crown closure

class, tree size class, and other attributes.

Supplemental Info: 1) Miller, Susan et al. 1994. North Eastern California

Vegetation Mapping: A Joint Agency Effort. CDF-FRAP.

1920 20th St. Sacramento, 95814. 2) Parker, I. And

Matyas, K. CALVEG: A Classification of California

Vegetation. Regional Ecology Group, 1979. 3) Mayer, K.

and Laudenslayer, W. Jr.1988. A Guide to Wildlife

Habitats of California. CDF-FRAP. 1920 20th St.

Sacramnto, 95814

Time Period Start: 1/1/1991
Time Period End: 1/1/2001

Currentness: Ground Condition

Progress: Complete
Update Frequency: Annually
Place: California

Geographic Region West: -124 Geographic Region East: -114 Geographic Region North: 42 Geographic Region South: 32

Themes: National forests, Botany, Chaparral ecology, Earth

sciences, Ecology, Fire ecology, Forest ecology,

Grassland ecology, Landscape ecology, Plant ecology,

Range ecology, Riparian ecology, Wetland ecology,

Biodiversity, Biomass energy, Forests and forestry,

Fuel, Renewable energy sources, Renewable natural

resources, Timber, Natural resources, Nontimber forest

resources, Land use, Forest management, Nat. res.

management areas, Reforestation, Silvicultural systems,

Ecosystem management, Agriculture, Resource

management, Resource conservation, Natural environment,

Biomass, Biotic communities, Chaparral, Conifers,

Deserts, Ecological communities, Endemic plants,

Grasslands, Plant communities, Plants, Riparian

forests, Trees, Vegetation, Wetlands, Woodlands

User Keywords: coastal oak, CWHR, live oak, Monitoring, blue oak,

CALVEG, Hardwoods, landscape vegetation changes, old

growth forests, Range Lands, redwood, remote sensing,

Shrub, TM, Urban Footprint, Valley Oak, Wildland/Urban

#### Interface

Access Limitations: No Restrictions

Use Limitations: FRAP disclaimer Read disclaimer within data

dictionary supplied when data are downloaded

from FRAP

site

Contact Information

Data Contact: LCMMP Vegetation Mapping Coordinator

Organization: CDF-FRAP Phone: 916-227-2658

916-227-2672 Fax:

Mark.Rosenberg@fire.ca.gov Email: http://frap.cdf.ca.gov/ Url:

1920 20th Street Address:

1920 20th Street

City: Sacramento State: California Postal Code: 95814 USA Country:

DISTRIBUTION INFORMATION

Online Linkage: http://frap.cdf.ca.gov/data.html
Distribution Format: ARC/INFO Export
Ordering Instructions: Obtain on-line or request through distribution

contact

Contact Information

Distribution Contact: FRAP data librarian

Organization: CDF-FRAP 916-227-1381 Phone: 916-227-2672 Fax:

http://frap.cdf.ca.gov Url:

1920 20th Street Address:

1920 20th Street

City: Sacramento State: California Postal Code: 95814 Country: USA

METADATA INFORMATION

5/2/2003 Date:

Contact Information

LCMMP Vegetation Mapping Coordinator Metadata Contact:

Organization: CDF-FRAP 916-227-2658 Phone: 916-227-2672 Fax:

Mark.Rosenberg@fire.ca.gov Email: http://frap.cdf.ca.gov/ Url:

1920 20th Street Address:

1920 20th Street

Citv: Sacramento California State: 95814 Postal Code:

Country: USA

DATA DICTIONARY

FEATURE TYPE: polygon

MINIMUM MAPPING UNIT: 2.5 acres for contrasting types. Lakes and

plantations

were often mapped to a smaller minimum mapping unit.

DATABASE FIELDS: polygon

		CI DE IDTH	ESCRIPT TYPE	ION MALS
AREA	8	18	F	5
PERIMETER	8	18	F	5 <b>–</b>
CTXXEVEG_Y#	4	5	В	
CTXXEVEG_Y-ID	4	5	В	
VEGZONE	1	1	С	- Vegetation zone #
ECOTILE	3	3	С	- Ecological tile # (Goudey &
Smith				
Ecological Units				
COVERTYPE 3	3	С	-	Life form code
VEGTYPE	2	2	С	<ul> <li>Primary CALVEG type code</li> </ul>
SIZE	1	1	С	<ul> <li>Tree size class code</li> </ul>
DENSITY	1	1	С	- Tree canopy Closure class
code				
ORIGIN	2	2	С	- Stand condition/origin code
PROD	1	1	С	- Productivity class code
VEGTYPE2	2	2	С	- Secondary CALVEG type code
SIZE2	1	1	С	- Secondary Tree size class
code				
DENSITY2	1		1	C - Secondary Tree canopy
closure class				
code	1	~		
DEN_TOTAL 1 code	1	С	_	- Total Tree canopy closure class
WHRTYPE	3	3	С	- WHR type code
WHRSIZE	1	1	I	- WHR tree size class
WHRDENSITY	1	1	С	- WHR tree density class #
WHR RANGE	10	10	С	- Tree density range for WHR
density				
class				
NWSIZE*	2	2	С	- Northwest Forest Plan size
class				
STRUCT*	1		1	C - Northwest Forst Plan
structure class				
UPDATE_DATE	8	10	D	- Source or more recent update
date				
UPDATE_CAUSE	1	1	С	- Type of update code

\*Field not included for all counties. See Field Name decriptions below.

## FIELD NAME: VEGZONE

The vegzone attribute is based on ecotile groupings and represents the area for  $% \left( 1\right) =\left( 1\right) +\left( 1\right) +\left($ 

which vegetation type descriptions are applied. For example Tanoak (QT) in the  $\,$ 

North Coast veg zone is associated with redwood and grows in pure stands while  $% \left( 1\right) =\left( 1\right) +\left( 1\right) +\left($ 

Tanoak on the south coast is associated with coastal sage scrub and rarely  $% \left( 1\right) =\left( 1\right) +\left( 1\right)$ 

grows in pure stands. Conversely, some types will be found only in certain  $\ensuremath{\mathsf{veg}}$ 

zones. For more information please visit our website at frap.cdf.ca.gov/projects/land cover/index.html

VEGZONE	DESCRIPTION
1	North Coast and Montane
2	North Interior
3	North Sierran
4	South Sierran
5	Central Valley
6	Central Coast and Montane
7	South Coast and Montane
8	South Interior

#### FIELD NAME: ECOTILE

The ecotile attribute is derived from the U.S.D.A. Forest Service  ${\tt Ecological}$ 

Units of California. Ecotiles form the basis for vegetation type modeling, and

map updating and maintenance. Ecological units differentiate major ecological

changes based on climate, physiography, vegetation, geology, topography, and

hydrologic function. Ecotiles are coded in a hierarchical order to facilitate

differentiating ecological areas such as the Sierra Nevada Mountains from the  $\,$ 

Sierra Nevada Foothills.

ECOTILE	DESCRIPTION (ECOLOGICAL SUBSECTIONS)
1	262Aa, 263Ab, 263Ad, 263Ae
2	M261Aa, M261Ab, M261Ad, M261Af, M261As, M261Au
3	M261Ag,M261Aj,M261Ap,M261Aq,M261At
4	M261Ae, M261Ah, M261Al, M261An, M261Ao
5	
M261D	a,M261Db,M261Dc,M261De,M261Df,M261Dg,M261Dh,M261Di,M261Dk
6	M261Ga, M261Gb, M261Gc, M261Ge, M261Gf, M261Gg, M261Gh
7	342Ba, 342Bb, 342Bc, 342Bd, 342Be
8	M261Ac,M261Ai,M261Ak,M261Am,M261Ar
9	M261Dd,M261Dj,M261Dl,M261Dm
10	M261Gd,M261Gi,M261Gj,M261Gj,M261Gk,M261Gl,
M261Gm, M261	Gn,M261Go,M261Gp
11	263Ag,263Ah,263Ai
12	M261Bb
13	M261Ba, M261Bc, M261Bd, M261Be, M261Bf
14	M261Ca, M261Cb, M261Cc
15	M261Fa
16	M261Ed, M261Ee, M261Ef
17	341Dk,M261Ea,M261Eb,M261Ec,M261Ei,M261Ej,M261El,M261En
18	262Aa, 262Ab, 262Ac, 262Ad, 262Ae, 262Af, 262Ah, 262An
19	M261Fb
20	M261Eg, M261Em, M261Eh

```
21
             M261Ek, M261Em
22
             263Ac, 263Aj, 263Ak, 263Al, 263Am
23
             262Ai, 262Aj, 262Ak, 262Al, 261Am, 261Ap
24
             261Aa, 261Ac
25
             261Af, 261Ah
26
             261Ab, 261Ad, 261Ae, 261Aq, 261Ai
27
            M262Aa, M262Ab, M262Ac
28
            M262Ad, M262Ag
29
             262Aq, 262Ar, 262As, 262At, 262Aw
30
             262Ao
31
             261Aj,261Ak,261Al
32
            M262Af, M262Ah, M262Ai, M262Aj, M262Ak
33
             262Au, 262Av
34
             262Ag
35
            M261Fc, M261Fd, M261Fe
36
            M261Ep, M261Eq
37
            M261Es, M261Eu
38
             322Aa
39
            341Fb,341Fe
40
            341Fc, 341Ff
41
            M261Eo
42
            M262Ae
43
             262Ay, 262Az, M262Ae
44
             322Ag
45
             322Ab, 322Ae, 322Af
             322Ac, 322Ad
46
47
             261Ba, 261Bb, 261Bd, 261Be, 261Bf
            M262Ba, M262Bb, M262Bc
48
49
             322Ah
50
             322Ai, 322Aj, 322Ak
51
             261Bg, 261Bi, 261Bj
52
            M262Bd, M262Be
53
            M262Bf,M262Bj,M262Bk,M262Bl
54
            M262Bg, M262Bh, M262Bi
55
            322An
56
            322Ao, 322Ap
             322Al
57
58
             322Am
59
            M262Bm, M262Bn, M262Bo, M262Bp
            322Ca, 322Cb, 322Cc
60
61
            322Cd
62
             322Bb, 322Bc, 322Bd, 322Be
63
             322Ba
             341Da, 341Db, 341Dc, 341Dd, 341De, 341Df, 341Dg,
341Dh, 341Di, 341Dj, 341Dk, 341Dl, 341Dm
             341Fa,341Fd
65
66
             261Bc, 261Bh
67
            M261Eh, M261Ek, M261Em, M261En
68
            M261Eg
```

## FIELD NAME: COVERTYPE

#### CLASSIFICATION RULES:

Conifer - greater than 10% cover as the dominant type  ${\tt Mix}$  - conifer greater than 10% cover and hardwood greater than 20% cover

Hardwood - greater than 10% hardwood cover as the dominant type Shrub - greater than 10% cover as the dominant type Grass - greater than 10% cover as the dominant type Barren - less than 10% cover of any vegetation Agriculture Urban Ice/snow Water

COVERTYPE	DESCRIPTION	
CON	conifer forest/woodland	
HDM	hardwood forest/woodland	
MIX	mixed conifer/hardwood woodland	
SHB	shrub	
HEB	herbaceous	
BAR	barren, rock, snow	
WAT	water	
AGR	agriculture	
URB	urban/residential	
NYM	not yet mapped	
NNA	urban vegetation/ornamental	
XXX	unknown/does not compute	

#### FIELD NAME: VEGTYPE

Primary vegetation type is the dominant vegetation type label based on the  $\mathtt{CALVEG}$ 

classification scheme, which is a conifer centric classification scheme. In order

to "cross walk" CALVEG types to WHR and other classification schemes, a secondary  $\ensuremath{\mathsf{CALVEG}}$ 

vegetation type label, VEGTYPE2, is assigned when mixes of Hardwood and Conifer are identified.

VEGTYPE	DESCRIPTION	COVERTYPI	
NON-FOREST	TYPES		
BA	Barren/Rock		BAR
WA	Water	WAT	
SN	Snow/Ice		BAR
AG	Agriculture		AGR
UB	Urban/Developed		URB
DU	Dune	BAR	
XZ	Unknown Non-Vegetated		BAR
CONTERD FOR			
CONTEER FOR	REST/WOODLAND		
AA	Noble Fir		
AB	Santa Lucia Fir		CON
BP	Bristlecone Pine		CON
BT	Big Tree	CON	
DF	Pacific Douglas-Fir		CON
DG	Douglas-Fir - Grand Fir		CON

DM	Discoura Douglas Ein	CONT	
DM	Bigcone Douglas-Fir	CON	
DP	Douglas-Fir - Pine	CON	
DW	Douglas-Fir - White Fir	CON	
EA 	Engelmann Spruce	CON	
EP	Eastside Pine	CON	
FP	Foxtail Pine	CON	
GF	Grand Fir	CON	
JC	California Juniper	CON	
JU	Utah Juniper	CON	
JP	Jeffrey Pine	CON	
KP	Knobcone Pine	CON	
LP	Lodgepole Pine	CON	
MA	Alaska Yellow-Cedar	CON	
MB	Mixed Conifer - Giant Sequoia		CON
MC	Cuyamaca Cypress		CON
MD	Incense-Cedar	CON	
MF	Mixed Conifer - Fir		CON
MG	Gowen Cypress		CON
MH	Mountain Hemlock		CON
MI	Piute Cypress		CON
MK	Klamath Mixed Conifer		CON
MM	Monterey Cypress		CON
MN	McNab Cypress		CON
MO	Baker Cypress	CON	
MP	Mixed Conifer - Pine		CON
MS	Sargent Cypress		CON
MT	Tecate Cypress		CON
MU	Ultramafic Mixed Conifer		CON
MY	Pygmy Cypress		CON
MZ	Santa Cruz Cypress		CON
PB	Brewer Spruce		CON
PC	Coulter Pine		CON
PD	Gray Pine		CON
PJ	Singleleaf Pinyon Pine		CON
PL	Limber Pine		CON
PM	Bishop Pine		CON
PO	Port Orford Cedar		CON
PP	Ponderosa Pine		CON
PQ	Fourneedle Pinyon Pine		CON
PR	Monterey Pine		CON
PS	Shore Pine		CON
PT	Torrey Pine		CON
PW	Ponderosa Pine - White Fir		CON
RD	Redwood - Douglas-Fir		CON
RF	Red Fir		CON
RW	Redwood		CON
SA	Subalpine Conifers		CON
SG	Sitka Spruce - Grand Fir		CON
SK	Sitka Spruce - Grand FIT	CON	CON
SR	Sitka Spruce - Redwood	CON	COM
WB	Whitebark Pine	CON	CON
		CON	COM
WF	Whatern Hemlack	CONT	CON
WH	Western Hemlock	CON	CONT
WJ	Western Juniper		CON
WP	Washoe Pine		CON
WW	Western White Pine	CONT	CON
XC	Unknown Conifer	CON	

# HARDWOOD FOREST/WOODLAND

ET		Elephant Tree		HDW
FM		Curlleaf Mountain Mahoga	anv	HDW
NR		Mixed Riparian Hardwoods		HDW
NX		Mixed Hardwoods		HDW
Q1		Live Oak - Madrone		HDW
QA		Coast Live Oak		HDW
QB		California Bay		HDW
QC		Canyon Live Oak		HDW
QD QD		Blue Oak		HDW
QE QE		White Alder		HDW
QE QF		Fremont Cottonwood		HDW
_				
QG		Oregon White Oak		HDW
QH		Madrone (Black Oak)		HDW
QI		California Buckeye		HDW
QJ		Cottonwood - Alder		HDW
QK		California Black Oak		HDW
QL		Valley Oak		HDW
QM		Bigleaf Maple (Dogwood)		HDW
QN		Engelmann Oak		HDW
QO		Willow		HDW
QP		California Sycamore		HDW
QQ		Quaking Aspen		HDW
QR		Red Alder		HDW
QS		Willow - Aspen		HDW
QΤ		Tanoak (Madrone)	HDW	
QV		Black Walnut		HDW
QW		Interior Live Oak		HDW
QX		Black Cottonwood	HDW	
QY		Willow - Alder		HDW
QΖ		Eucalyptus		HDW
TC		Tree Chinquapin		HDW
TX		Montane Mixed Hardwood		HDW
UD		Desert Willow		HDW
UI		Desert Ironwood		HDW
UJ		Joshua Tree		HDW
UL		Catclaw Acacia		HDW
UM		Mesquite		HDW
UP		Palo Verde		HDW
UT		Tamarisk		HDW
UW		Fan Palm		HDW
UX		Smoke Tree - Desert Will	l OW	HDW
WD			LOW	
		Dogwood Coastal Mixed Hardwood		HDW
EX		Coastal Mixed Hardwood Unknown Hardwood	прм	HDW
XH		Ulikilowii naluwood	HDW	
SHRUB '	PYPES			
מטאוויט .	11110			

#### SHRUB TYPES

\_\_\_\_\_

AD	White Bursage	SHB
AC	Cushion Plant	SHB
AX	Mixed Alpine Scrub	SHB
AN	Mendocino Manzanita	SHB
BB	Bitterbrush	SHB
BC	Saltbush	SHB
BG	Black Greasewood	SHB

BL	Low Sagebrush		SHB	
BM	Curlleaf Mountain Mahoga	any	SHB	
BR	Rabbitbrush		SHB	
BS	Basin Sagebrush		SHB	
BX	High Desert Mixed Shrub		SHB	
BQ	Basin Mixed Scrub	SHB		
BZ	Basin Transition (Desert	t) Scri	ıb SHB	
C1	Ultramafic Mixed Shrub		SHB	
CA	Chamise		SHB	
CB	Salal-Calif. Huckleberry		)	SHB
CC	Foothill Mixed Chaparral			SHB
CD	Southern Mixed Chaparral	L		SHB
CG	Greenleaf Manzanita			SHB
CH	Huckleberry		SHB	
CI	Deerbrush			SHB
CJ	Brewer Oak			SHB
CK	Coyote Brush			SHB
CL	Wedgeleaf Ceanothus			SHB
CM	Upper Montane Mixed Shru	ıb		SHB
CN	Pinemat Manzanita			SHB
CQ	Northern Mixed Chaparral	L		SHB
CR	Red Shanks Charparral			SHB
CS	Scrub Oak			SHB
CT	Tucker Scrub Oak			SHB
CV	Snowbrush			SHB
CW	Whiteleaf Manzanita			SHB
CX	Montane Mixed Chaparral		SHB	
CZ	Semi Desert Chaparral		SHB	
DA	Blackbush		SHB	
DB	Desert Buckwheat	SHB		
DC	Cholla		SHB	
DD	Croton			SHB
DE	Arrowweed	SHB		
DI	Indigo Bush	SHB		
DO	Ocotillo	SHB		
DL	Creosote		SHB	
DS	Shadscale	SHB		
DV	Mixed Desert Succulent		SHB	
DX	Mixed Desert Shrub			SHB
FD	Ephedra (Mormon/Desert 7	[ea)	SHB	
HS	Cheesebush	SHB		
JC	California Juniper		SHB	
LS	Scalebroom	SHB		
ML	Baccharis (riparian)		SHB	
NA	Mixed Alkaline Scrub		SHB	
NB	Mixed Desert Wash Scrub		SHB	
NC	North Coastal Mixed Shru	ıb		SHB
NQ	Mixed High Desert Scrub		SHB	
RS	Alluvial Fan Sage Scrub		SHB	
SB	Buckwheat (White Sage)			SHB
SC	Blueblossom Ceanothus			SHB
SD	Manzanita Chaparral		SHB	
SE	Encelia Scrub		SHB	
SH	Coastal Bluff Scrub		SHB	
SI	Bladderpod	SHB		
SL	Coastal Lupine		SHB	
SM	Sumac Shrub	SHB		

	_		_	
SO	Coastal Cactus		SHB	
SP	Sage	SHB		
SQ	Soft Scrub-Chaparral		SHB	
SS	California Sagebrush		SHB	
SY	Chaparral Yucca		SHB	
TA	Mountain Alder		SHB	
TM	Cotton-thorn		SHB	
WL	Willow (riparian scrub)		SHB	
WM	Birchleaf Mountain Mahoo	gany	SHB	
XS	Unknown Shrub		SHB	
WET HERBACE	OUS TYPES			
HC		/ <del></del>		
HJ	Wet Meadows (Grass/Sedge			HEB
HT	Tule - Cattail - Sedge			
XJ	Unknown Grass/Herbs		HEB	
DRY HERBACE	OUS TYPES			
	 Annual Grass/Forbs			HED
HG HM	Perennial Grass			HEB HEB
нм XG	Unknown Grass/Herbs		HEB	пьь
AG	Ulikilowii Glass/Helbs		пьь	
URBAN/NON-N	ATIVE VEGETATION			
			טעט	
IA	Giant Reed/Pampas Grass			
IA IC	Giant Reed/Pampas Grass Non-native/Ornamental Co	nifer	CON	
IA IC IG	Giant Reed/Pampas Grass Non-native/Ornamental Co Non-native/Ornamental Gr	nifer		ном
IA IC IG IH	Giant Reed/Pampas Grass Non-native/Ornamental Co Non-native/Ornamental Gr Non-native Hardwood	onifer cass	CON HEB	HDW MTX
IA IC IG	Giant Reed/Pampas Grass Non-native/Ornamental Co Non-native/Ornamental Gr	onifer cass	CON HEB	HDW MIX

FIELD NAME: SIZE

X1

Primary tree size is for the dominant vegetation type label based on the  $\mathtt{CALVEG}$ 

vegetation types (mixes of Hardwood and Conifer) are identified.

Unknown Urban/Non-native Veg. NNA

SIZE	DESCRIPTION			
N	Non-Stocked (Areas Not Reforested)			
0	Seedlings (Derived From Plantation Age)			
1	Saplings (Derived From Plantation Age)			
2	Poles Crown Diameter Less Than 12 Feet			
3	Small Crown Diameter From 12 To 24 Feet			
4	Medium Crown Diameter From 24 To 40 Feet			
5	Large Crown Diameter Greater Than 40 Feet			
6	Two Storied Overstory Of Size Class 4 Or 5, Cannot			
Exceed 20% Cover, Distinct Understory Layer of				
Size Class 2 or 3, Two Size Classes Less Than				
Overstor, U	nderstory Cover At Least 40%			
X	Not Determined			

#### FIELD NAME: SIZE2

Primary tree size is for the dominant vegetation type label based on the  $\operatorname{CALVEG}$ 

classification scheme. Secondary size (SIZE2) is assigned when secondary  $\ensuremath{\mathsf{S}}$ 

vegetation types (mixes of Hardwood and Conifer) are identified.

SIZE2	DESCRIPTION
N	Non-Stocked (Areas Not Reforested)
0	Seedlings
1	Saplings Crown Diameter Less Than 15 Feet
2	Poles Crown Diameter From 15 To 30 Feet
3	Small Crown Diameter From 30 To 45 Feet
4	Medium Crown Diameter Greater Than 45 Feet
Χ	Not Determined

#### FIELD NAME: DENSITY

Primary tree Density is for the dominant vegetation type label based on the CALVEG classification scheme. Secondary Density (DENSITY2) is assigned when

secondary vegetation types (mixes of Hardwood and Conifer) are identified.

Use Den total to obtain total tree canopy for each stand.

DENSITY	DESCRIPTION		
0	0 - 9%	canopy	closure
1	10 - 19%	canopy	closure
2	20 - 29%	canopy	closure
3	30 - 39%	canopy	closure
4	40 - 49%	canopy	closure
5	50 - 59%	canopy	closure
6	60 - 69%	canopy	closure
7	70 - 79%	canopy	closure
8	80 - 89%	canopy	closure
9	90 - 100%	canopy	closure
X	Not Deter	mined	

#### FIELD NAME: DENSITY2

Primary tree Density is for the dominant vegetation type label based on the

CALVEG classification scheme. Secondary Density (DENSITY2) is assigned when secondary vegetation types (mixes of Hardwood and Conifer) are identified.

Use Den\_total to obtain total tree canopy for each stand.

DENSITY2		DESCRIPTION
0	0 -	9% canopy closure

1	10	_	19%	canopy	closure
2	20	_	29%	canopy	closure
3	30	_	39%	canopy	closure
4	40	-	49%	canopy	closure
5	50	_	59%	canopy	closure
6	60	-	69%	canopy	closure
7	70	-	79%	canopy	closure
8	80	-	89%	canopy	closure
9	90	- 1	L00%	canopy	closure
X	Not	. D∈	etern	nined	

FIELD NAME: DEN TOTAL

Primary tree Density is for the dominant vegetation type label based on the  $\mathtt{CALVEG}$ 

classification scheme. Secondary Density (DENSITY2) is assigned when secondary  $\,$ 

vegetation types (mixes of Hardwood and Conifer) are identified. Use  $\mbox{\tt Den}$  total to

obtain total tree canopy for each stand.

DEN\_TOTAL DESCRIPTION
----
X 0-9

FIELD NAME: ORIGIN

ORIGIN DESCRIPTION

\_\_\_\_\_

YY Year Of Initial Planting

SW Shelterwood Cut - Overwood Present

Code Size Class 3, Density

NS Non-Stocked Timberland

OR Overstory Removal - Overwood Not Present

Code Size Class 1 Or 2, Density X

FIELD NAME: PROD

PROD DESCRIPTION

\_\_\_\_

P Productive Timber Site, Capable Of Growing 10%

Cover Of Industrial Wood Tree Species

N Non-Productive Site, Not Capable Of Growing 10%

Cover Of Industrial Wood Tree Species

O Non-Forested Types

FIELD NAME: WHRTYPE

WHRTYPE DESCRIPTION

\_\_\_\_\_

ADS ALPINE DWARF SHRUB

AGR AGRICULTURE AGS ANNUAL GRASS

```
ASC
            ALKALI SCRUB
ASP
            ASPEN
BAR
            BARREN
BBR
            BITTERBRUSH
BOP BLUE OAK FOOTHILL PINE
BOW
            BLUE OAK WOODLAND
CHP
            UNKNOWN SHRUB TYPE
CON
            UNKNOWN CONIFER TYPE
COW
            COASTAL OAK WOODLAND
CPC
            CLOSED CONE PINE-CYPRESS
CRC
            CHAMISE-REDSHANK CHAPARRAL
CRP
            AGRICULTURE-CROPS
CSC
            COASTAL SCRUB
DFR
            DOUGLAS FIR
DRI
            DESERT RIPARIAN
DRY
            DRY LAKE BED
DSC
            DESERT SCRUB
DSS
            DESERT SUCCULENT SCRUB
DSW
            DESERT WASH
EPN
            EASTSIDE PINE
EUC EUCALYPTUS
EST
            ESTUARINE
            FRESHWATER EMERGENT WETLAND
FEW
FWT
            FORESTED WETLAND
GRS
            UNKNOWN GRASS TYPE
            JEFFREY PINE
JPN
JST
            JOSHUA TREE
            JUNIPER
JUN
KMC
           KLAMATH MIXED CONIFER
LAC
            LACUSTRINE
LPN
            LODGEPOLE PINE
LSG
            LOW SAGEBRUSH
MAR
            MARINE
MCH
            MIXED CHAPARRAL
            MIXED CONIFER
MCN
            MONTANE CHAPARRAL
MCP
            MONTANE HARDWOODS CONIFER
MHC
MHW
            MONTANE HARDWOOD
MRI
           MONTANE RIPARIAN
TWN
            NONFORESTED WETLAND
OVN
            AGRICULTURE-ORCHARD-VINYARD
PGS
            PERENNIAL GRASS
            PINYON-JUNIPER
PJN
POS
            PALM OASIS
PPN
            PONDEROSA PINE
RDW
            REDWOOD
RFR
            RED FIR
            RIVERINE
RIV
ROG
            REDWOOD OLDGROWTH
RYG
            REDWOOD SECONDGROWTH
SCN
            SUBALPINE CONIFER
            SALINE EMERGENT WETLAND
SEW
SGB
            SAGEBRUSH
SMC
            SIERRAN MIXED CONIFER
UAG
            URBAN-AGRICULTURE
URB
            URBAN
```

VALLEY FOOTHILL HARDWOOD

VFH

VOW VALLEY OAK WOODLAND
VRI VALLEY FOOTHIL RIPARIAN
WAT WATER
WFR WHITE FIR

WTM WET MEADOW

BARREN/ROCK/OTHER XXX

FIELD NAME: WHRSIZE

WHRSIZE	DESCRIPTION			
1	Seedling	Less Than 1 inch		
2	Sapling	1 to 6 inches		
3	Pole	6 to 11 inches		
4	Small Tree	11 to 24 inches		
_	/	0		

Medium/Large Tree Greater Than 24 inches

Multi Layered Size 5 Over Size 4 Or 3; Total Tree

Crown

Closure Greater Than 60%

FIELD NAME: WHRDENSITY

WHRDENSITY	DESCRIPTION (WHR_RANGE)
S P M D	10 to 24% 25 to 39% 40 to 59% 60 to 100% Not Determined

FIELD NAME: UPDATE DATE

UPDATE DATE DESCRIPTION

\_\_\_\_\_\_ mm/dd/yy Month/day/year of source date or most recent update

FIELD NAME: UPDATE CAUSE

UPDATE_CAUSE	DESCRIPTION
F	Fire related update
A	Accuracy assessment related update
R	Plantation related update
C	Update cause unknown
Н	Harvest related update
S	Source image
M	Mass wasting (i.e. flood, avalanche)
U	Land conversion to urban
L	Land conversion to agriculture
G	Non-plantation re-growth after fire
I	Change detection-unknown increase
T	Change detection-unknown decrease
E	Successional change
V	Fuel treatments

K	Agriculture related change
M	Snowdown/blowdown
J	Type conversion tp plantation/site preperation
P	Pest and disease caused mortality
D	Change detection related update (fazing Out)

NWSIZE and STRUCT fields will only be found in the coverages that have complete vegetation data and are in the North West Forest Plan Area of the state.

FIELD NAME: NWSIZE

NWSIZE	DECRIPTION	
NS	Non stocked	
XX	Not Determined	
00	0-1"	
02	1-4.9"	
07	5-11.9"	
15	12-19.9"	
25	20-23.9"	
35	30-39.9"	
45	40-49.9"	
55	50 <b>"</b> +	

NWSIZE stands for Northwest Tree Size Class.

FIELD NAME: STRUCT

STRUCT	DESCRIPTION
1	Single-storied canopy
2	Multi-storied canopy
X	Not Mapped

STRUCT refers to the Northwest Structure.

#### COORDINATE SYSTEM DESCRIPTION

Projection Datum	ALBERS NAD27		
Units	METERS	Spheroid	CLARKE1866
Parameters:			
1st standard parallel			34 0 0.000
2nd standard parallel			40 30 0.000
central meridian			-120 0 0.00
latitude of projection's	origin		0 0.000
false easting (meters)			0.00000
false northing (meters)			-400000.0000

DISCLAIMER

The State of California and the Department of Forestry and Fire Protection make no representations or warranties regarding the accuracy of data or maps. The user will not seek to hold the State or the Department liable under any circumstances for any damages with respect to any claim by the user or any third party on account of or arising from the use of data or maps.

The user will cite the Department of Forestry and Fire Protection as the original source of the data, but will clearly denote cases where the original data have been updated, modified, or in any way altered from the original condition.

There are no restrictions on distribution of the data by users. However, users are encouraged to refer others to the Department of Forestry and Fire Protection to acquire the data, in case updated data become available.

For geology metadata, see separate CD-ROM.

# National Map Unit Interpretation Record Database (MUIR)

#### Identification Information

Citation:

Originator: U.S. Department of Agriculture, Natural Resources Conservation

Service

Publication Date: 1994

Title: National Map Unit Interpretation Record (MUIR) Database

**Publication Information** 

Publication Place: Fort Worth, Texas

Publisher: U.S. Department of Agriculture, Natural Resources

Conservation Service

## Description

Abstract: This data set is a collection of soil and soil-related properties, interpretations, and performance data for a soil survey area and its map units, map unit components, and component layers. This data set has been developed by the National Cooperative Soil Survey and is a dynamic soil information and database. Information contained within the MUIR database have been reviewed and certified in accordance with National Cooperative Soil Survey data quality standards.

MUIR data contains about 88 estimated soil physical and chemical properties, interpretations, and performance data. Examples are available water capacity; soil reaction; soil erodibility factors (K, Kf, and T); hydric soil ratings; ponding, flooding, water table depth, and duration; bedrock; interpretations for sanitary facilities, building site development, engineering, cropland, woodland, and recreational development; and yields for common crops, site indices of common trees, and potential production of rangeland plants.

Purpose: MUIR depicts information about soil features on or near the surface of the Earth. These data are collected as part of the National Cooperative Soil Survey.

Time Period of Content Single Date/Time Calendar Date: 1994

Currentness Reference: publication date

## Status

Progress: Approximately 80 percent of the United States, by county. Maintenance and Update Frequency: Published yearly.

## Spatial Domain

**Bounding Coordinates** 

The bounds of the MUIR data are those of individual soil survey areas. In many cases, the soil survey area boundaries correspond with the county boundaries. In other cases, the soil survey areas may comprise only a portion of a county or may comprise an area larger than a single county (e.g. 2 or more counties). A few soil survey areas correspond to some other geopolitical boundary, such as a National Forest or a National Park.

# Keywords

Theme

Theme Keyword Thesaurus: None

Theme Keyword: Soils

Theme Keyword: Attribute data
Theme Keyword: Soil properties
Theme Keyword: Soil survey
Theme Keyword: Interpretations
Theme Keyword: Performance data

#### Place

Place Keyword Thesaurus: Counties and County Equivalents of the

United States and the District of Columbia (FIPS Pub 6-3)

Place Keyword: e.g. Virginia

Place Keyword Thesaurus: Counties and County Equivalents of the United States and the District of Columbia (FIPS Pub 6-3)

Place Keyword: e.g. Roanoke County and the Cities of Roanoke and Salem

Access Constraints: None

Use Constraints: The U.S. Department of Agriculture, Natural Resources Conservation Service should be acknowledged as the data source in products derived from these data.

This data set is not designed for use as a primary regulatory tool in permitting or citing decisions, but may be used as a reference source. This is public information and may be interpreted by organizations, agencies, agencies, units of government, or others, based on needs; however, they are responsible for the appropriate application. Federal, State, or local regulatory bodies are not to reassign to the Natural

Resources Conservation Service any authority for the decisions that they make. The Natural Resources Conservation Service will not perform any evaluations of these maps for purposes related solely to State or local regulatory programs.

MUIR data should be used in conjuntion with soil survey maps. The soil survey maps indicate the geographic location and extent of the soil map units within the soil survey area. Mapping scales generally range from 1:12000 to 1:31680. The maps meet or exceed the national NRCS mapping specifications. MUIR data are intended to be used by landowners, county and local governments, and other natural resource managers for basic land use planning. It is not intended to be used for site-specific land use suitability determinations, such as approval, siting, and sizing of septic tank absorption fields.

The use of these data is not restricted and may be interpreted by organizations, agencies, units of government, or others; however, they are responsible for its appropriate application. Federal, State, or local regulatory bodies are not to reassign to the Natural Resources Conservation Service any authority for the decisions that they make. The Natural Resources Conservation Service will not perform any evaluations of these maps for purposes related solely to state or local regulatory programs.

Some of the data elements in the MUIR may contain incomplete or missing data. In some cases, the soil property represented by the data element is not appropriate to the soil survey areas, and has, therefore, been intentially left blank (e.g.gypsuml and gypsumh). In other situations, the data are actively being edited and are incomplete, as of the data of the data download for the National MUIR database.

These data files are periodically updated. Files are dated, and users are responsible for obtaining the latest version of the data.

Point of Contact (National MUIR)

Contact Organization Primary

Contact Organization: U.S. Department of Agriculture, Natural Resources

Conservation Service

Contact Position: Jon D. Vrana, NRCS National Soil Survey Database

Coordinator
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State or Province: Nebraska Postal Code: 68508-3866

Contact Voice Telephone: 402 437 5423 Contact Facsimile Telephone: 402 437 5336

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## **Data Quality Information**

## Attribute Accuracy

Attribute Accuracy Report: Attribute accuracy is tested by automated data validation procedures, including data type, data length, data range, key data field, and null key fields. In addition, soil scientists performed manual comparison with the official published soil survey. In addition, the attributes are tested against a master set of valid attributes. All attribute data conform to the attribute codes in the signed classification and correlation document and amendments and are current as of the date of download from the State Soil Survey Database, contained within each state.

Logical Consistency Report: none

## Completeness Report:

Most MUIR data exist in the database as a range of soil properties, depicting the range for the soil survey area. Data are obtained from a combination of field observations, site descriptions and transects, and laboratory analyses.

Some of the data elements in the MUIR may contain incomplete or missing data. In some cases, the soil property represented by the data element is not appropriate to the soil survey areas, and has, therefore, been intentially left blank (e.g.gypsuml and gypsumh). In other situations, the data are actively being edited and are incomplete, as of the date that the data was downloaded to the National MUIR database.

In making the soil survey, soil scientists observed landforms and landscape features, such as steepness, length, and shape of slopes; the general pattern of drainage; the kinds of crops and native plants growing on the soils; and the kinds of bedrock. They observed and studied many soil profiles. Samples of some of the soils in the area are collected for laboratory analyses and for engineering tests. Soil boundaries were drawn on the soil maps and a locally tailored MUIR database was constructed, based on these observations and the resulting landscape model the soil scientist developed.

Specific limits were established on the classification of soils and the design and name of map units. These limits are outlined in U.S. Department of Agriculture. 1975. Soil Taxonomy: A basic system of soil classification for making and interpreting soil surveys. Soil Conserv. Serv., U.S. Dep. Agric. Handb. 436.; U.S. Department of Agriculture. 1992. Keys to Soil Taxonomy. SMSS Technical Monograph No. 19. Soil Surv. Staff, Soil Conserv. Serv.; U.S. Department of Agriculture. 1993. National Soil Survey Handbook, title 430-VI. Soil Surv. Staff, Soil Conserv. Serv.; and U.S. Department of Agriculture. 1993. Soil Survey Manual. Soil Surv. Staff, U.S. Dep. Agric. Handbook 18.

The actual composition and interpretative purity of the map unit delineations were based on statistical analyses of field observations and transect data. Adherence to National Cooperative Soil Survey standards and procedures is based on peer review, quality control, and quality assurance. Quality control is outlined in the memorandum of understanding for the soil survey area and in documents that reside with the Natural Resources Service state soil scientist. Four kinds of map units are used in soil survey: consociations, complexes, associations, and undifferentiated groups.

Consociations - Consociations are named for the dominant soil. In a consociation, delineated areas are dominated by a single soil taxon and similar soils. At least one half of the pedons in each delineation are of the same soil components so similar to the named soil that major interpretations are not affected significantly. The total amount of dissimilar inclusions of other components in a map unit generally does not exceed about 15 percnet if limiting and 25 percent if not limiting. A single component of a dissimilar limiting inclusion generally does not exceed 10 percent if very contrasting.

Complexes and associations - Complexes and associations are named for two or more dissimilar components with the dominant component listed first. They occur in a regularly repeating pattern. The major components of a complex cannot be mapped separately at the scale of about 1:24,000. The major components of an association can be separated at a scale of about 1:24,000. In each delineation of either a complex or an association, each major component is normally present, though their proportions may vary appreciably from one delineation to another. The total amount of inclusions in a map unit that are dissimilar to any of the major components does not exceed 15 percent, if limiting, and 25

percent, if nonlimiting. A single kind of dissimilar limiting inclusion usually does not exceed 10 percent.

Undifferentiated Groups - Undifferentiated groups consist of two or more components that do not always occur together in the same delineation, but are included in the same named map unit because use and management are the same or similar for common uses. Every delineation has at least one of the major components and some may have all of them. The same principles regarding proportions of inclusions apply to undifferentiated groups as to consociations.

Minimum documentation consists of three complete soil profile descriptions that are collected for each soil added to the legend, one additional per 3,000 acres mapped; three 10-observation transects per each map unit, one additional 10-point transect per 3,000 acres.

A defined standard or level of confidence in the interpretive purity of the map unit delineations is attained by adjusting the kind and intensity of field investigations. Field investigations and data collection are carried out in sufficient detail to name map units and to identify, accurately and consistently, areas of about 6 acres.

Adherence to National Cooperative Soil Survey standards and procedures is based on peer review, quality control, and quality assurance. Quality control is outlined in documents that reside with the Natural Resources Conservation Service state soil scientist.

Positional Accuracy Horizontal Positional Accuracy Horizontal Positional Accuracy Report:

Lineage

Source Information

Source Citation

Originator: U.S Department of Agriculture, Natural Resources

Conservation Service

Title: Soil Interpretations Record (SIR)

Geospatial Data Presentation Form: attribute data

**Publication Information** 

**Publication Place:** 

Publisher:

Type of Source Media: electronic files (ASCII, tab-delimited)

Source Currentness Reference: publication date

Source Citation Abbreviation: SCS2

Source Contribution: reference information for

development of map unit interpretation record (MUIR)

data (soil properties for total soil and by soil layer,

for phases of soil series)

Source Citation

Originator: U.S Department of Agriculture, Natural Resources

Conservation Service

Title: Map Unit Use File (MUUF, SOI6)

Geospatial Data Presentation Form: attribute data

**Publication Information** 

**Publication Place:** 

Publisher:

Type of Source Media: electronic files (ASCII, tab-delimited)

Source Currentness Reference: publication date

Source Citation Abbreviation: SCS2

Source Contribution: reference information for development of map unit interpretation record (MUIR) data (soil survey area-specific information to tailor Soil Interpretations Record (SIR) data to reflect local conditions). Information includes, but is not limited to, state, soil survey area identification number, soil survey area name, map unit symbol and name, soil component name, linkage to the specific SIR records, layer-tailoring criteria, etc.

## **Process Step**

Process Description: Field procedures for the second order soil survey are determined by field observations and by interpretation of remotely sensed data. Boundaries were verified at closely spaced intervals, and the soils in each delineation were identified by traversing and transecting the landscape. Soil scientists described and sampled the soils, analyzed samples in the laboratory. and statistically analyzed the data. The classification and map unit names were finalized at the final correlation. if the soil survey has been correlated and published. The information is subject to change prior to final correlation and publication.

Process Date: e.g. 1990

Source Used Citation Abbreviation: NRCS1

**Process Step** 

Process Description: Soil Interpretation Records (SIR) were

created and edited for each soil in the United States. These records contain approximately 88 soil and nonsoil properties, interpretations, and yield and production information, and represent an aggregation of ranges of properties for everywhere that the soil is found.

Process Date: 1994

Source Used Citation Abbreviation: NRCS1

## Process Step

Process Description: Map Unit Records (SOI-6) were created and edited for each map unit in every soil survey area in the United States. Basically, the SOI-6 is a form to query the SIR database to initially generate a preliminary Map Unit Interpretation Record (MUIR) database. A national collection of the SOI-6 records is contained in the Map Unit Use Files (MUUF) database. The SOI-6 form is used by the soil scientist to select and tailor the SIR data record to reflect local soil conditions. Properties tailorable through this process step include soil surface texture and thickness, all soil layer thickness, drainage, prime farmland status, and other selected properties.

Process Date: e.g. 1994.

Source Used Citation Abbreviation: NRCS1

## Process Step

Process Description: Map Unit Interpretation Record (MUIR) data were created for each and every soil survey contained within the National Map Unit Interpretation Record (MUIR) database. The creation, editing, error-checking, and maintenance of the SOI-6 and SIR databases were the responsibility of the NRCS State Soil Scientist and the State Soil Survey Database (SSSD) Manager. The processing of the SOI-6 (or MUUF) and SIR databases and the generation of the MUIR occured at the Statistical Laboratory, Iowa State University, Ames, Iowa. Process Date: e.g. 1994.

Source Used Citation Abbreviation: NRCS1

## Process Step

Process Description: Map Unit Interpretation Record (MUIR) data were validated and downloaded in the appropriate pipedelimited ASCII file format, utilizing the 1995 NRCS Field Office Computing System (FOCS) Soil database format. The validation and downloading software are contained within within the NRCS State Soil Survey Database (SSSD) software.

Process Date: e.g. 1994.

Source Used Citation Abbreviation: NRCS1

Spatial Data Organization Information

Direct Spatial Reference Method:

Spatial Reference Information

**Entity and Attribute Information** 

Overview Description

Entity and Attribute Overview: Map Unit Delineations are closed polygons that may be dominated by a single soil or nonsoil component, plus allowable similar or dissimilar soils, or they can be geographic mixtures of groups of soils or soils and nonsoils.

Map Unit Delineations are described by the Map Unit

The state, soil survey area id symbol, and map unit symbol uniquely identify each closed delineation, map unit and form the key to uniquely link to a map unit name. These set of data elements also form the key for linking information in the Map Unit Interpretations Record tables.

Interpretations Record database. This attribute database gives the proportionate extent of the component soils and the properties for each soil. The database contains both estimated and measured data on the physical and chemical soil properties and soil interpretations for engineering. water management, recreation, agronomic, woodland, range and wildlife uses of the soil. The Soil Map Unit Interpretations Record database consist of the following relational tables: codes (database codes) - stores information on all codes used in the database comp (map unit component) - stores information which will apply to a specific component of a soil map unit compyld (component crop yield) - stores crop yield information for soil map unit components ewoodlnd (existing woodland productivity) - store information on common indicator trees for soil map unit components forest (forest understory) - stores information for plant cover as forest understory for soil map unit components hydcomp (hydric soil component information) - stores data and information related to the hydric classification, criteria, landform, etc.

inclusn (map unit inclusions) - stores the names of soils included in the soil map units

interp (interpretation) - stores soil interpretation ratings (both limitation ratings and suitability ratings) to soil map unit components layer (soil layer) - stores characteristics which apply to soil layers for soil map unit components mapunit (map unit) - stores information which applies to all components of a soil map unit mucoacre (map unit county acres) - stores the number of acres for the map unit within the county muyld (map unit yield) - stores crop yield information for the soil map unit. plantcom (plant composition) - stores plant symbols and percent of plant composition associated with components of soil map units plantnm (plant name) - stores the common and scientific names for plants used in the database pwoodlnd (woodland) - store information on potential indicator trees for soil map unit components rangenm (range name) - stores the range site name. rsprod (range site production) - stores range site production information for soil map unit components sdbcodes (soil database codes) - stores database data dictionary information ssacoac (soil survey area county acreage) - stores the acreage for the county within the boundary of the soil survey area ssarea (soil survey area) - stores information that will

ssarea (soil survey area) - stores information that will apply to an entire soil survey area taxclass (taxonomic classification) - stores the taxonomic classification for soils in the database windbrk (windbreak) - stores information on recommended windbreak plants for soil map unit components wlhabit (wildlife habitat) - stores wildlife habitat information for soil map unit components woodmgt (woodland management) - stores woodland management information for soil map unit components yldunits (yield units) - stores crop names and the units used to measure yield

Entity and Attribute Detail Citation U.S. Department of Agriculture. 1975. Soil Taxonomy: A basic system of soil classification for making and interpreting soil surveys. Soil Conserv. Serv., U.S. Dep. Agric. Handb. 436.

U.S. Department of Agriculture. 1992. Keys to Soil Taxonomy. SMSS Technical Monograph No. 19. Soil Surv. Staff, Soil

Conserv. Serv.

- U.S. Department of Agriculture. 1993. National Soil Survey Handbook, title 430-VI. Soil Surv. Staff, Soil Conserv. Serv.
- U.S. Department of Agriculture. 1993. Soil Survey Manual. Soil Surv. Staff, U.S. Dep. Agric. Handbook 18.
- U.S. Department of Agriculture. 1993. National Soil Survey Handbook, title 430-VI. Soil Surv. Staff, Soil Conserv. Serv.
- U.S. Department of Agriculture. State Soil Survey Database Data Dictionary. Soil Conserv. Serv.

## Distribution Information

Distributor

Contact Organization Primary

Contact Organization: U.S. Department of Agriculture, Natural Resources

Conservation Service, National Cartography and GIS

Center

Contact Address

Address Type: mailing address

Address: P.O. Box 6567

City: Fort Worth

State or Province: Texas Postal Zone: 76115

Contact Voice Telephone: 817 334 5559 Contact Facsimile Telephone: 817 334 5469

Resource Description: National MUIR Database

Distribution Liability: Although these data have been processed successfully on a computer system at the U.S Department of Agriculture, no warranty expressed or implied is made by the Agency regarding the utility of the data on any other system, nor shall the act of distribution constitute any such warranty. The U.S. Department of Agriculture will warrant the delivery of this product in computer-readable format, and will offer appropriate adjustment of credit when the product is determined unreadable by correctly adjusted computer input peripherals, or when the physical medium is delivered in damaged condition. Request for adjustment of credit must be made within 90 days from the date of this shipment from the ordering site.

The U.S. Department of Agriculture, nor any of its agencies are liable for misuse of the data. It is also not liable for damage, transmission of viruses, or computer contamination through the distribution of these data sets. The U.S. Department of Agriculture prohibits discrimination in its programs on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, and marital or familial status. (Not all prohibited bases apply to all programs.)

Standard Order Process

Non-digital Form: Not available

Digital Form

Digital Transfer Information

Format Name: ASCII

Format Content Information: keys and attributes

Transfer Size: 1.6
Digital Form

**Digital Transfer Information** 

Format Name: ARCE

Format Content Information: spatial, keys, and attributes

Format Specification: Single precision

Transfer Size:

Digital Transfer Option

Offline Option

Offline Media: 8mm cartridge tape

Recording Capacity Recording Density: 2.3

Recording Density Units: gigabytes

Recording Format: tar Digital Transfer Option

Offline Option

Offline Media: 1/4-inch cartridge tape

Recording Capacity
Recording Density: 150

Recording Density Units: megabytes

Recording Format: tar

Fees: The charge for one data set (CD-ROM) is \$50.00. A data set is national coverage with state-wide format and includes only attribute data. Spatial data are not included within the MUIR database.

Ordering Instructions: Call or write to organizations listed under Distributor. The Map Unit Interpretations Record attribute soil data are available in variable length, tab

delimited, ASCII or ARC Export files upon request. The MUIR data currently are only available on CD-ROM in a pipe-delimited (|) ASCII format without headers. Header files, with data element names and one row of dashes also accompany the data on the CD, but are in separate files.

Turnaround: 10 working days

Metadata Reference Information

Metadata Date: 19950817

Metadata Review Date: 19950817

Metadata Future Review Date: 19951001

Metadata Contact

Contact Organization Primary Contact Organization: U.S. Department

of Agriculture, Natural Resources Conservation Service

Contact Position: National Soil Survey Database Coordinator

**Contact Address** 

Address Type: mailing address

Address: Federal Building, Room 152 Address: 100 Centennial Mall North

City: Lincoln

State or Province: Nebraska Postal Code: 68508-3866

Contact Voice Telephone: 402 437 5423 Contact Facsimile Telephone: 402 437-5336

Metadata Standard Name: Content Standards for MUIR

Metadata

Metadata Standard Version: 19940608

MUIR Metadata Standard created by Jon D. Vrana, National Soil Survey Database Coordinator, National Soil Survey Center, USDA-Natural Resources Conservation Service. Last updated August 31, 1995

http://www.statlab.iastate.edu/soils/muir/metadata.html Aug. 31, 1995

# Seamless DEM National Elevation Dataset

# Metadata:

- Identification Information
- Spatial Data Organization Information
- Distribution Information

Metadata Reference Information

### Identification Information:

Citation:

Citation\_Information:

Originator: U.S. Geological Survey (USGS), EROS Data Center

Publication Date: 1999

Title: National Elevation Dataset

Edition: 1

Geospatial\_Data\_Presentation\_Form: raster digital data

Publication\_Information:

Publication\_Place: Sioux Falls, SD Publisher: U.S. Geological Survey

Online\_Linkage: <a href="http://gisdata.usgs.net/ned/">http://gisdata.usgs.net/ned/</a>

Description: Abstract:

The U.S. Geological Survey has developed a National Elevation Dataset (NED). The NED is a seamless mosaic of best-available elevation data. The 7.5-minute elevation data for the conterminous United States are the primary initial source data. In addition to the availability of complete 7.5-minute data, efficient processing methods were developed to filter production artifacts in the existing data, convert to the NAD83 datum, edge-match, and fill slivers of missing data at quadrangle seams. One of the effects of the NED processing steps is a much-improved base of elevation data for calculating slope and hydrologic derivatives. The specifications for the NED 1 arc second and 1/3 arc second data are: Geographic coordinate system Horizontal datum of NAD83, except for AK which is NAD27 Vertical datum of NAVD88, except for AK which is NAVD29 Z units of meters

# Purpose:

Geospatial elevation data are utilized by the scientific and resource management communities for global change research, hydrologic modeling, resource monitoring, mapping, and visualization applications. Supplemental Information: see metadata file for individual DEM'sused.

(Source DEM information)
Time Period of Content:

Time\_Period\_Information:

Range\_of\_Dates/Times: Beginning\_Date: 19990201 Ending Date: Unknown

Currentness\_Reference: publication date

Status:

Progress: In work

Maintenance and Update Frequency: As needed

Spatial\_Domain:

Bounding\_Coordinates:

West\_Bounding\_Coordinate:-122.0 East\_Bounding\_Coordinate:-121.0 North\_Bounding\_Coordinate:37.0 South Bounding Coordinate:35.5

## Keywords:

Theme:

Theme\_Keyword\_Thesaurus: GCMD Parameter Keywords

Theme\_Keyword: EARTH SCIENCE Theme\_Keyword: LAND SURFACE Theme\_Keyword: TOPOGRAPHY Theme\_Keyword: LANDFORMS

Theme Keyword: TERRAIN ELEVATION

Theme\_Keyword: 1-DEGREE DEM

Theme\_Keyword: 2-ARC-SECOND DEM Theme\_Keyword: 7.5-MINUTE DEM Theme Keyword: CARTOGRAPHY

Theme Keyword: DEM

Theme\_Keyword: DIGITAL ELEVATION MODEL

Theme Keyword: DIGITAL MAPPING

Theme\_Keyword: EDC Theme\_Keyword: EROS Theme\_Keyword: GEODATA

Theme Keyword: GIS

Theme\_Keyword: MAPPING Theme\_Keyword: RASTER Theme Keyword: USGS

Place:

Place\_Keyword\_Thesaurus: GCMD Location Keywords

Place\_Keyword: NORTH AMERICA Place\_Keyword: UNITED STATES

Place\_Keyword: UNITED STATES OF AMERICA

Access\_Constraints: None

Use Constraints:

None. Acknowledgement of the originating agencies would be appreciated in products derived from these data.

Spatial Data Organization Information:

## *Distribution\_Information:*

Distributor:

Contact\_Information: Contact\_Person\_Primary:

Contact Person: Customer Services Representative

Contact\_Organization: EROS Data Center

Contact Address:

Address Type: mailing and physical address

Address:

U.S. Geological Survey EROS Data Center

City: Sioux Falls

State\_or\_Province: SD Postal\_Code: 57198

Country: USA

Contact\_Voice\_Telephone: 605-594-6151 Contact\_Facsimile\_Telephone: 605-594-6589

Contact\_Electronic\_Mail\_Address: custserv@edcmail.cr.usgs.gov

Resource Description: National Elevation Dataset (NED)

Distribution Liability:

Although these data have been processed successfully on a computer system at the U.S. Geological Survey, EROS Data Center, no warranty expressed or implied is made by either regarding the utility of the data on any system, nor shall the act of distribution constitute any such warranty. The USGS will warrant the delivery of this product in computer-readable format and will offer appropriate adjustment of credit when the product is determined unreadable by correctly adjusted computer peripherals, or when the physical medium is delivered in damaged condition. Requests for adjustments of credit must be made within 90 days from the date of this shipment from the ordering site.

## Metadata Reference Information:

Metadata\_Date: 19990211

Metadata\_Contact:
Contact\_Information:
Contact\_Person\_Primary:

Contact\_Person: Customer Services Representative

Contact Organization: EROS Data Center

Contact Address:

Address Type: mailing and physical address

Address:

U.S. Geological Survey EROS Data Center

City: Sioux Falls

State\_or\_Province: SD Postal\_Code: 57198

Country: USA

Contact\_Voice\_Telephone: 605-594-6151 Contact\_Facsimile\_Telephone: 605-594-6589

Contact\_Electronic\_Mail\_Address: custserv@edcmail.cr.usgs.gov

Metadata\_Standard\_Name: FGDC Content Standards for Digital

Geospatial Metadata

Metadata\_Standard\_Version: FGDC-STD-001-1998

California Counties Metadata.

For full, current data link, see: <a href="http://gis.ca.gov/casil/boundaries/cnty24k">http://gis.ca.gov/casil/boundaries/cnty24k</a>

#### WATER Metadata

The Counties shapefile was produced using 1994 Census TIGER files. The TIGER files, were, in turn, digitized from 1:100k USGS quad maps (unknown source date). The shapefiles were created by dissolving all tract polygons for each county and clipping, where appropriate, to the shoreline to exclude those portions of the census tracts that are offshore.

#### CASIL metadata:

<u>Identifier</u>: County Boundaries (1:24000)

#### **Citation Information**

Title: County Boundaries (1:24000)

California Department of Forestry and Fire Protection - Fire and

digital

data

Originator: Resource Assessment Program (using data from BOR and DOC

vector

FMMP)

Edition:

<u>Publication</u>

Date:

2004

<u>Information</u>

Resource

Type:

Format:

Content:

Other <u>Citation</u>

Details:

#### **Identification Information**

Abstract: In late 1996, the Dept of Conservation (DOC) surveyed state

and federal agencies about the county boundary coverage they used. As a result, DOC adopted the 1:24, 000 scale Bureau of Reclamation dataset (USGS source) for their Farmland Mapping and Monitoring Program (FMMP) but with several major and minor modifications. Detailed documentation of these changes is provided by FMMP and included as part of the data dictionary.

Browse Graphic:

<u>Purpose</u>: Ideally, state and federal agencies should be using the same

framework data for common themes such as county boundaries. This layer provides an initial offering as "best available" at

1:24,000 scale. Additional improvements, including a review of data sources for the coastline, can be added over time based on interagency review and agreement on proposed changes.

<u>Supplemental</u>

Info:

Time Period: Start: 1/1/1997 End: 12/31/1997

**Currentness:** Ground Condition

Progress: Complete

**Update** 

Places:

Unknown

Frequency:

Place Name of Bounding Box: California

Other Place Names: California

Geographic West: -124.0000 East: -114.0000 North: 42.0000

Region: South: 32.0000

<u>Themes</u>: Government, County boundaries, county line, county boundary

Access No Restrictions

Limitations:

Use FRAP disclaimer Read disclaimer within data dictionary supplied

Limitations: when data are downloaded from FRAP site

Data Contact FRAP data librarian

**Distribution Information** 

Online Link: /casil/boundaries/cnty24k

#### **Metadata Information**

Date: 2004-01-22

Metadata
Contact: FRAP data librarian

Metadata Standard:

# MPWMD Boundary metadata:

Identification\_Information:

Citation:

Citation Information:

Originator: Monterey Peninsula Water Management District

Publication Date: 20031030

Title: Distbndy103003

Geospatial Data Presentation Form: vector digital data

Publication Information:

Publication Place: Monterey, CA

Publisher: Monterey Peninsula Water Management District

Online Linkage:

\\Gisdbh2o\Xdrive\Data\Shapefile\DISTBNDY\Distbndy103003.shp

Description:

Abstract: This is a regional scale map of the Monterey Peninsula Water Management District (MPWMD) regulatory area. It is based on the boundary as described in the State Water Code Appendix 118-102, Chapter 1: Creation and Territory. It is intended for general mapping and planning purposes.

Purpose: To provide a digital representation of the Monterey Peninsula Water

Management District boundary

Time\_Period\_of\_Content: Time\_Period\_Information: Range\_of\_Dates/Times: Beginning\_Date: 20031030

Ending\_Date: 1983

Currentness Reference: publication date

Status:

Progress: Complete

Maintenance and Update Frequency: None planned

Spatial Domain:

**Bounding Coordinates:** 

West\_Bounding\_Coordinate: -121.982643 East\_Bounding\_Coordinate: -121.565043 North\_Bounding\_Coordinate: 36.688023 South Bounding Coordinate: 36.264701

Keywords: Theme:

Theme\_Keyword\_Thesaurus: None Theme\_Keyword: regulatory boundary

Theme Keyword: MPWMD

Place:

Place Keyword Thesaurus: None

Place\_Keyword: California Place\_Keyword: Del Rey Oaks

Place\_Keyword: Monterey

Place\_Keyword: Monterey County

Place\_Keyword: Sand City
Place\_Keyword: Seaside
Place\_Keyword: United States

Access\_Constraints: Contact the Monterey Peninsula Water Management

District for access constraints.

Use Constraints:

The digital map, GIS, or database data provided are "as is" and the MPWMD expressly disclaims the spatial accuracy of the DATA and fitness for a particular purpose, and further expressly disclaims responsibility for all incidental, consequential or special damages arising out of or in connection with the use or performance of the digital data. The MPWMD does not warrant that the functions contained in the requested data will meet requestor's requirements, that the operation of the data will be uninterrupted or error free, or that data defects will be corrected by the MPWMD.

The digital data is intended for regional evaluation purposes and not for site-specific evaluation. Information in this data set is preliminary in nature and subject to revision. Conclusions drawn from such information, whether from individual use or aggregate use with other data, are the responsibility of the User. All products, digital, written or otherwise, which are derived from the DATA, shall provide full acknowledgement to the Monterey Peninsula Water Management District.

Point\_of\_Contact: Contact Information:

Contact Organization Primary:

Contact\_Organization: Monterey Peninsula Water Management District

Contact Person: Eric Sandoval

Contact Position: Geographic Information Systems and Graphics Specialist

Contact Address:

Address\_Type: mailing address

Address: P.O. Box 85

City: Monterey

State\_or\_Province: CA Postal\_Code: 93942-0085

Country: USA Contact\_Address:

Address\_Type: physical address Address: 5 Harris Court, Bldg G

City: Monterey

State\_or\_Province: CA Postal Code: 93940

Country: USA

Contact\_Voice\_Telephone: (831) 658-5600 Contact\_Facsimile\_Telephone: (831) 644-9560

Contact Electronic Mail Address: eric@mpwmd.dst.ca.us

Hours\_of\_Service: Monday to Friday, 8 AM to 5 PM, Pacific Time

Native\_Data\_Set\_Environment: Microsoft Windows 2000 Version 5.0 (Build 2195) Service Pack 4; ESRI ArcCatalog 8.3.0.800

Data\_Quality\_Information:

Attribute Accuracy:

Attribute\_Accuracy\_Report: All attributes created during the creation process were verified by displaying the lines in both the database and the spatial coverage, but no formal tests were performed.

Logical\_Consistency\_Report: These data are believed to be logically consistent, although no tests were performed.

Positional Accuracy:

Horizontal\_Positional\_Accuracy:

Horizontal\_Positional\_Accuracy\_Report: Spatial accurcy for this file is dependent on the reference base layers used to generate the boundary. In general, these layers are no better in spatial accuracy than a USGS Topographic quad which is listed as having a 40-50 ft error. The parcel file for Monterey County has not been referenced to geodetic control points and can have a positional error as much as 150 feet.

Vertical Positional Accuracy:

Lineage:

Source\_Information: Source\_Citation: Citation\_Information:

Originator: State of California Publication\_Date: Unknown Title: State Water Code

Geospatial\_Data\_Presentation\_Form: document

Series Information:

Series\_Name: open-file document

Publication Information:

Publication Place: Sacramento, CA

Publisher: State of California Source\_Scale\_Denominator: NA Type\_of\_Source\_Media: CD-ROM Source Time Period of Content:

Time Period Information:

Single Date/Time:

Calendar Date: unknown

Source\_Currentness\_Reference: publication date Source\_Citation\_Abbreviation: MPWMD 2003

Process Step:

Process\_Description: This boundary was created from several digital GIS layers. Using the legal description as outlined in the State Water Code the boundary was created using the following files as reference layers: Calfornia coastline as defined by State of California Department of Fish and Game, Marine City boundary as defined by Monterey County, Parcel lot lines as defined by

Monterey County, Township and Range boundaries as defined by State of California Public Land Survey System, Monterey County centerline roads as defined by Monterey County and Malpaso Creek from the NHD dataset as defined by USGS.

Source Used Citation Abbreviation: State of California Water Code

Source Used Citation Abbreviation: coast24a.shp

Source\_Used\_Citation\_Abbreviation: Monterey\_PLSA.shp Source Used Citation Abbreviation: city limits-p.shp

Course Used Citation Abbreviation, percelections of the decided of

Source\_Used\_Citation\_Abbreviation: parcels013003\_db012703.shp

Source\_Used\_Citation\_Abbreviation: it\_roads.shp Source Used Citation Abbreviation: allrivers.shp

Process Date: 20031030

Process\_Contact:
Contact\_Information:
Contact\_Person\_Primary:
Contact\_Person: Eric Sandoval

Contact\_Organization: Monterey Peninsula Water Management District Contact Position: Geographic Information Systems and Graphics Specialist

Contact Address:

Address\_Type: physical address

Address: PO Box 85

Address: 5 Harris Court, Bldg G

City: Monterey

State\_or\_Province: CA Postal Code: 93940

Country: USA

Contact\_Voice\_Telephone: (831) 658-5600 Contact\_Facsimile\_Telephone: 831) 644-9560

Contact\_Electronic\_Mail\_Address: eric@mpwmd.dst.ca.us

Hours of Service: Monday to Friday, 8 AM to 5 PM, Pacific Time

Spatial\_Data\_Organization\_Information:
Direct\_Spatial\_Reference\_Method: Vector
Point and Vector Object Information:

SDTS Terms Description:

SDTS\_Point\_and\_Vector\_Object\_Type: String

Point\_and\_Vector\_Object\_Count: 17

Spatial Reference Information:

Horizontal\_Coordinate\_System\_Definition:

Planar:

Grid Coordinate System:

Grid Coordinate System Name: State Plane Coordinate System 1983

State\_Plane\_Coordinate\_System:

SPCS\_Zone\_Identifier: 404 Lambert\_Conformal\_Conic: Standard\_Parallel: 36.000000 Standard\_Parallel: 37.250000 Longitude\_of\_Central\_Meridian: -119.000000 Latitude of Projection Origin: 35.333333

False\_Easting: 6561666.666667 False\_Northing: 1640416.666667 Planar\_Coordinate\_Information:

Planar\_Coordinate\_Encoding\_Method: coordinate pair

Coordinate\_Representation:
Abscissa\_Resolution: 0.000256
Ordinate\_Resolution: 0.000256
Planar Distance Units: survey feet

Geodetic Model:

Horizontal Datum Name: North American Datum of 1983

Ellipsoid Name: Geodetic Reference System 80

Semi-major Axis: 6378137.000000

Denominator of Flattening Ratio: 298.257222

Entity and Attribute Information:

Detailed\_Description:

Entity Type:

Entity Type Label: Distbndy103003

Entity\_Type\_Definition: MPWMD regulatory boundary

Entity Type Definition Source: author

Attribute:

Attribute Label: FID

Attribute Definition: Internal feature number.

Attribute Definition Source: ESRI

Attribute Domain Values:

Unrepresentable\_Domain: Sequential unique whole numbers that are

automatically generated.

Attribute:

Attribute Label: Shape

Attribute\_Definition: Feature geometry.

Attribute Definition Source: ESRI

Attribute Domain Values:

Unrepresentable Domain: Coordinates defining the features.

Attribute:

Attribute Label: ID

Attribute\_Definition: Type of boundary Attribute Definition Source: author

Attribute\_Domain\_Values: Enumerated Domain:

Enumerated Domain Value: Political

Enumerated\_Domain\_Value\_Definition: Regulatory boundary Enumerated Domain Value Definition Source: MPWMD

Distribution Information:

Distributor:

Contact Information:

Contact\_Organization\_Primary:

Contact Organization: Monterey Peninsula Water Management District

Contact Person: Eric Sandoval

Contact\_Position: Geographic Information Systems and Graphics Specialist

Contact Address:

Address\_Type: physical address

Address: P.O. Box 85

Address: 5 Harris Court, Bldg G

City: Monterey

State\_or\_Province: CA Postal\_Code: 93940

Country: USA

Contact\_Voice\_Telephone: (831) 658-5600 Contact\_Facsimile\_Telephone: (831) 644-9560

Contact Electronic Mail Address: eric@mpwmd.dst.ca.us

Resource\_Description: This map was prepared in support of the MPWMD's desire to obtain a digital representation of the District boundary which would be based on legal description and retain the highest spatial accuracy possible.

## Distribution Liability:

The digital map, GIS, or database data provided are "as is" and the MPWMD expressly disclaims the spatial accuracy of the DATA and fitness for a particular purpose, and further expressly disclaims responsibility for all incidental, consequential or special damages arising out of or in connection with the use or performance of the digital data. The MPWMD does not warrant that the functions contained in the requested data will meet requestor's requirements, that the operation of the data will be uninterrupted or error free, or that data defects will be corrected by the MPWMD.

The digital data is intended for regional evaluation purposes and not for site-specific evaluation. Information in this data set is preliminary in nature and subject to revision. Conclusions drawn from such information, whether from individual use or aggregate use with other data, are the responsibility of the User. All products, digital, written or otherwise, which are derived from the DATA, shall provide full acknowledgement to the Monterey Peninsula Water Management District.

Standard Order Process:

Digital Form:

Digital Transfer Information:

Transfer Size: 0.030

Ordering Instructions: Contact the Monterey Peninsula Water Management

**District** 

Metadata Reference Information:

Metadata Date: 20031030

Metadata Contact:

Contact Information:

Contact Person Primary:

Contact Person: Eric Sandoval

Contact\_Organization: Monterey Peninsula Water Management District Contact\_Position: Geographic Information Systems and Graphics Specialist

Contact Address:

Address Type: mailing address

Address: P.O. Box 85

City: Monterey

State\_or\_Province: CA Postal Code: 93942-0085

Contact Address:

Address\_Type: physical address Address: 5 Harris Court, Bldg G

City: Monterey

State\_or\_Province: CA Postal Code: 93940

Country: USA

Contact\_Voice\_Telephone: (831) 658-5600 Contact Facsimile Telephone: (831) 644-9560

Contact\_Electronic\_Mail\_Address: eric@mpwmd.dst.ca.us

Hours of Service: Monday to Friday, 8 AM to 5 PM, Pacific Time

Metadata Standard Name: FGDC Content Standards for Digital Geospatial

Metadata

Metadata Standard Version: FGDC-STD-001-1998

Metadata Time Convention: local time

Metadata Extensions:

Online Linkage: http://www.esri.com/metadata/esriprof80.html

Profile Name: ESRI Metadata Profile