

State of California
The Resources Agency
DEPARTMENT OF WATER RESOURCES



MODIFIED STANDARD
LAND USE LEGEND

Land and Water Use Section
Water Use and Efficiency Branch
Division of Statewide Integrated Water Management

December 2022

STANDARD LAND USE LEGEND

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I. GENERAL

The minimum breakdown of land use is according to the class symbol. More detail is obtained by adding the subclass number to the class symbol, or by use of special condition symbols. Any or all of the following information can be delineated.

1. Types of agricultural, urban, or native land use
2. Specific crops
3. Multiple land use
4. Sources of water supply
5. Type of irrigation system

This legend is for land use surveys conducted in 2016 and after.

II. AGRICULTURAL CLASSES

The vast majority of crops grown in California are irrigated. Unless preceded with an "n" if it is non-irrigated, all agricultural classes are considered irrigated. (This statement is for the agricultural classes and does not apply to the other non-agricultural classes of semi agricultural, urban, or native.)

G - GRAIN AND HAY CROPS

- | | | | |
|----|--------|----|--|
| 1. | Barley | 6. | Miscellaneous grain and hay |
| 2. | Wheat | | [barley, cover crops (soil building), forage mixes, mixed grain and hay, oats, cereal rye, triticale, vetch, grouped for remote sensing] |
| | | 7. | Mixed grain and hay |
| 3. | Oats | | |

R - RICE

- | | | | |
|----|------|----|-----------|
| 1. | Rice | 2. | Wild rice |
|----|------|----|-----------|

F - FIELD CROPS

- | | | | |
|----|----------------------|-----|---|
| 1. | Cotton | 9. | Castor beans |
| 2. | Safflower | 10. | Beans (dry), [blackeye beans, castor beans, common beans (kidney, pinto, black, cranberry), garbanzo beans, lima beans, grouped for remote sensing] |
| 3. | Flax | 11. | Miscellaneous field [flax, hemp, hops, horse radish, millet, mint, quinoa, sugar cane, mixed field crops, grouped for remote sensing] |
| 4. | Hops | 12. | Sunflowers |
| 5. | Sugar beets | 13. | Hybrid sorghum/Sudan |
| 6. | Corn (field & sweet) | 14. | Millet |
| 7. | Grain sorghum | 15. | Sugar cane |
| 8. | Sudan | 16. | [Corn (field and sweet), hybrid sorghum/Sudan grass, grouped for remote sensing] |

P - PASTURE

- | | | | |
|----|--|-----|---|
| 1. | Alfalfa & alfalfa mixtures | 6. | Miscellaneous grasses [bermudagrass, forage grass, Klein grass, ryegrass, teff, turf, grouped for remote sensing] |
| 2. | Clover | 7. | Turf farms |
| 3. | Mixed pasture [clover, mixed pasture, including high water table native pasture, native pasture, grouped for remote sensing] | 8. | Bermuda grass |
| 4. | Native pasture | 9. | Rye grass |
| 5. | Induced high water table | 10. | Klein grass |

T - TRUCK, NURSERY AND BERRY CROPS

- | | |
|--|--|
| 1. Artichokes | 16. Flowers, nursery & Christmas tree farms. [Cannabis, Christmas trees, cut flowers and foliage, lavender, Mexican fan palm, ornamental nursery, crop transplant nursery, tree nursery, grouped for remote sensing] |
| 2. Asparagus | |
| 3. Beans (green) | 17. Mixed truck (four or more) |
| 4. Cole crops (mixture of cole crops or cole crops not specifically listed in the legend). [Broccoli, Brussel sprouts, cabbage, cauliflower, kale, mixed cole crops, grouped for remote sensing] | 18. Miscellaneous truck (a truck crop not specifically listed in the legend). [Artichokes, Asian leafy vegetables, asparagus, basil, bok choy, green beans, herbs, beets (fresh market), celery, chard, cilantro, dill, eggplant, fennel, leeks, lemongrass, okra, parsley, parsnips, peas, radishes, thyme, tomatillos, turnips, mixed truck crops, grouped for remote sensing] |
| | 19. Bush berries [blueberries, blackberries, raspberries, and other bushberries, grouped for remote sensing] |
| 6. Carrots | 20. Strawberries |
| 7. Celery | 21. Peppers (chili, bell, etc.) |
| 8. Lettuce (all types) | 22. Broccoli |
| 9. Melons, squash, and cucumbers (all types). [Cantaloupe, cucumber, gourds, honeydew, mixed cucurbits, melons, pumpkins, spaghetti squash, squash, watermelon, yellow squash, zucchini, grouped for remote sensing] | 23. Cabbage |
| 10. Onions and garlic | 24. Cauliflower |
| 11. Peas | 25. Brussels sprouts |
| 12. Potatoes | 26. Tomatoes (market) |

13. Sweet potatoes
14. Spinach
15. Tomatoes (processing)

27. Greenhouse
28. Blueberries
29. Asian leafy vegetables

30. [Lettuce/Leafy Greens for remote sensing]
31. [Potato and Sweet Potato, grouped for remote sensing]
32. [Tomato (processing and market), grouped for remote sensing]

D - DECIDUOUS FRUITS AND NUTS

1. Apples
2. Apricots
3. Cherries
5. Peaches and nectarines
6. Pears
7. Plums
8. Prunes
9. Figs

10. Miscellaneous deciduous (a type of deciduous orchard not specifically listed in the legend). [Chestnuts, figs, hazelnuts, jujube, persimmons, mixed deciduous, grouped for remote sensing]
11. Mixed deciduous
12. Almonds
13. Walnuts
14. Pistachios
15. Pomegranate
16. [Plums, Prunes and Apricots, grouped for remote sensing]
17. Pecans

C - CITRUS AND SUBTROPICAL

1. Citrus [Clementine, grapefruit, lemons, limes, oranges (all types), mixed citrus, pomelos, tangelos, tangerines, grouped for remote sensing]
1. Grapefruit
2. Lemons
3. Oranges
4. Dates
5. Avocados
6. Olives (oil and table olives, grouped for remote sensing)

7. Miscellaneous [Cherimoya, guava, jojoba, mango, Mexican hawthorn, nopal, mixed, subtropical fruits, grouped for remote sensing]
8. Kiwis
9. Jojoba
10. Eucalyptus
11. Mixed subtropical fruits

V – VINEYARDS

1. Grapes [Raisin grapes, table grapes, wine grapes, grouped for remote sensing]
2. Table grapes
3. Raisin grapes
4. Wine grapes

I – IDLE

(Precede with "n" in non-irrigated area, and must include subclass)

1. Land not cropped the current or previous crop season but cropped within the past three years.
2. New lands being prepared for crop production.
4. Long term idle, land that has been fallow or idle for four or more years.

X – UNCLASSIFIED FALLOW

Not cropped, or unclassified at the time of remote sensing analysis. Idle status not determined.

YP – Young perennial fruits and nuts [includes young orchards and vineyards, grouped for remote sensing]

III. SEMIAGRICULTURAL CLASS

(Do not precede with "n")

S - SEMIAGRICULTURAL & INCIDENTAL TO AGRICULTURE

(Must include subclass)

- | | |
|---|--|
| 1. Farmsteads (includes a farm residence) | 4. Poultry farms |
| 2. Livestock feed lot operations | 5. Farmsteads (without a farm residence) |
| 3. Dairies | 6. Miscellaneous semi-ag (small roads, ditches, non-planted areas of cropped fields) |

IV. URBAN CLASSES

(Do not precede with "n")

U - URBAN

Residential, commercial, and industrial (may be used alone when further breakdown is not required)

UR - RESIDENTIAL

Single and multiple family units, including trailer courts (may be used alone when further breakdown is not required)

1. Single family dwellings with lot sizes greater than 1 acre up to 5 acres (ranchettes, etc.)
2. Single family dwellings with a density of 1 unit/acre up to 8+ units/acre.
3. Multiple family (apartments, condos, townhouses, barracks, bungalows, duplexes, etc.)
4. Trailer courts

WATER USE FACTOR (% of total area irrigated - will be the second digit of UR Subclass when water factor is used)

1. 0% to 25% area irrigated
2. 26% to 50% area irrigated
3. 51% to 75% area irrigated
4. 76% or greater

Example: UR32 indicates multiple family with water use factor of 26% to 50% of area irrigated.

UC - COMMERCIAL

(May be used alone when further breakdown is not required)

1. Offices, retailers, etc.
2. Hotels
3. Motels
4. Recreation vehicle parking, camp sites
5. Institutions (hospitals, prisons, reformatories, asylums, etc., having a reasonably constant 24-hour resident population)
6. Schools (yards to be mapped separately if large enough)
7. Municipal auditoriums, theaters, churches, buildings and stands associated with racetracks, football stadiums, baseball parks, rodeo arenas, amusement parks, animal boarding and/or exercise facilities, etc.
8. Miscellaneous high-water use (to be used to indicate a high water use condition not covered by the above categories.)

UI - INDUSTRIAL

(May be used alone when further breakdown is not required)

1. Manufacturing, assembling, and general processing
2. Extractive industries (oil fields, rock quarries, gravel pits, rock and gravel processing plants, etc.)
3. Storage and distribution (warehouses, substations, railroad marshalling yards, tank farms, etc.)
6. [Sawmills](#)
7. Oil refineries
8. Paper mills
9. Meat packing plants
10. Steel and aluminum mills
11. Fruit and vegetable canneries and general food processing
12. Miscellaneous high-water use (to be used to indicate a high water use condition not covered by other categories)
13. Sewage treatment plant including ponds.
14. Waste accumulation sites (public dumps, sewage sludge sites, landfill and hazardous waste sites, etc.)
15. Wind farms, solar collector farms, etc.

UL - URBAN LANDSCAPE

(May be used alone when further breakdown is not required)

1. Lawn area - irrigated
2. Golf course - irrigated
3. Ornamental landscape (excluding lawns) - irrigated
4. Cemeteries - irrigated
5. Cemeteries - not irrigated

UV - VACANT

(May be used alone when further breakdown is not required)

1. Unpaved areas (vacant lots, graveled surfaces, play yards, developable open lands within urban areas, etc.)
3. Railroad right of way
4. Paved areas (parking lots, paved roads, oiled surfaces, flood control channels, tennis court areas, auto sales lots, etc.)
6. Airport runways
7. Land in urban area that is not developable

V. NATIVE CLASSES

(Do not precede with "n")

NC - NATIVE CLASSES UNSEGREGATED

(May be used alone when further breakdown is not required)

NV - NATIVE VEGETATION

(May be used alone when further breakdown is not required)

- | | |
|-----------------|---------------------|
| 1. Grass land | 5. Brush and timber |
| 2. Light brush | 6. Forest |
| 3. Medium brush | 7. Oak grassland |
| 4. Heavy brush | |

NR - RIPARIAN VEGETATION

(May be used alone when further breakdown is not required)

1. Marsh lands, tules and sedges
2. Natural high water table meadow
3. Trees, shrubs or other larger stream side or watercourse vegetation
4. Seasonal duck marsh, dry or only partially wet during summer
5. Permanent duck marsh, flooded during summer

NW - WATER SURFACE

(May be used alone when further breakdown is not required)

1. River or stream (natural freshwater channels)
2. Water channel (all sizes - ditches and canals - delivering water for irrigation and urban use – e.g., State Water Project, CVP, water district canals, etc.)
3. Water channel (all sizes - ditches and canals - for removing on-farm drainage, water surface runoff and subsurface drainage – e.g., Colusa Basin Drainage Canal, drainage ditches in Imperial ID)
4. Freshwater lake, reservoir, or pond (all sizes, includes ponds for stock, recreation, groundwater recharge, managed wetlands, on-farm storage, etc.)
5. Brackish and saline water (includes areas in estuaries, inland water bodies, the ocean, etc.)
6. Wastewater pond (dairy, sewage, cannery, winery, etc)
7. Paved water conveyance channels within urban areas (mainly for flood control)

NB - BARREN AND WASTELAND

(May be used alone when further breakdown is not required)

- | | |
|------------------------|---------------|
| 1. Dry stream channels | 4. Salt flats |
| 2. Mine Tailing | 5. Sand dunes |
| 3. Barren land | |

VI. UNCLASSIFIED

NS - NOT SURVEYED

Area within the investigation area that was not mapped.

E - ENTRY DENIED

Area within the investigation area that was not mapped because entry into the area was denied.

Z - OUTSIDE

Area outside of the study area.

VII. SPECIAL CONDITIONS, IRRIGATION TYPE, AND WATER SOURCE

When any of the following special conditions, type of irrigation, or source of water is displayed on a map as a label, a (-) should precede them. When more than one is used they should be displayed in the order stated above.

1. SPECIAL CONDITIONS (only one can be used per parcel)

A - ABANDONED ORCHARDS AND VINEYARDS

Trees or vines must be in such a condition that renewal of cultural practices would restore economic production. Indicated by "A" following crop symbol.

Example: D1-A indicates an apple orchard previously irrigated but now abandoned.

B - BURNED OVER AREAS

Indicated by "B". The type and density of natural cover destroyed by fire is obtained by examination of aerial photo.

Example: NV7-B indicates oak grassland recently burned over.

C – GREEN CHOPPED

Grain or field crops harvested early for livestock feed

D - HIGH DENSITY ORCHARDS

Indicates the density of trees is higher than normally expected (used with D and C classes).

E – ECOSYSTEM RESTORATION

Native vegetation or riparian areas that have undergone restoration (used with NV and NR classes).

F - FALLOW LANDS

Land not cropped during the current crop season, but cropped during the previous crop season.

- (1) If no crop residue is apparent or identifiable then the "F" symbol will follow the agricultural class symbol for the crop most representative of those grown in the area.
Example: T-F indicates fallow land within a truck crop area (with facilities for irrigation).
- (2) If the crop residue is apparent and identifiable but is not from the current crop season covered by the survey, then the field is considered fallow and mapped as the class of the crop residue.
Example: Surveyor found an old sugar beet residue not from current season.
Land would be mapped F-F.
- (3) If the crop residue is identifiable as that of a crop which was grown during the survey period, then map the field as though crop existed.
Example: Surveyor found carrot residue from current growing season. Land would be mapped T6.

G – COVER CROP

Indicates where grain, field, or pasture type crops have been planted for soil stabilization or for cover crops grown between rows of deciduous and subtropical trees and vines.

H – HARVESTED CROP

Indicates the identified crop was harvested at the time of the survey (used with truck, field, and grain crops).

K – FREEWAYS

The area within the freeway right of way.

Examples: UV-K indicates urban vacant, unsegregated, with a freeway special condition (all areas within the freeway right of way).

UV4-K indicates the urban vacant paved areas with a freeway special condition (the paved portion within the freeway right of way.)

UL3-K indicates irrigated urban landscape with a freeway special condition (irrigated landscape portion within the freeway right of way).

P – FALLOWING PROGRAM LAND

Agricultural land fallowed or idled due to participation in a water conservation, water transfer, or related program requiring fallowing.

R - RECREATIONAL

To be used with urban residential, commercial, and vacant (R.V. parks and camp sites) within primarily a seasonal recreational area.

S - SEED CROP

Indicates any crop grown for seed.

Example: P1-S indicates irrigated alfalfa seed crop.

T - TILLED LANDS

Land prepared for immediate planting, or just newly planted, including the appearance of seed lines or unidentifiable tiny seedlings.

Example: T-T indicates tilled land (either prepared for planting or just planted) in a predominately truck crop area.

U – INTERPRETED LANDUSE

Indicates that the land use was determined using other means than visual field verification.

W – LAND USE DATA ACQUIRED FROM THIRD PARTY

X - PARTIALLY IRRIGATED CROPS

Crops irrigated for only part of their normal irrigation season.

Example: P3-X indicates partially irrigated mixed pasture.

Y - YOUNG CROPS

Indicates the identified crop is at early stages of growth (used with non-bearing orchards and vineyards, and truck, field, and grain crops).

Example: C3-Y indicates young non-bearing irrigated oranges.

Z - RECLAMATION

Land being leached for the removal of harmful salts. This symbol will be used following either the “Idle” symbol or symbols of crops grown as a step in the reclamation process.

Example: I2-Z indicates new lands being leached in preparation for crop production.

2. TYPE OF IRRIGATION SYSTEM

C - Center Pivot Sprinkler
L - Linear Move Sprinkler
R - Side Roll Sprinkler
H - Hand Move Sprinkler
P - Permanent Sprinkler
T - Solid Set Sprinkler
F - Furrow Irrigation
B - Border Strip Irrigation
N - Basin Irrigation
W - Wild Flooding
S - Subirrigation
D - Surface Drip Irrigation
A - Buried Drip Irrigation
M - Micro Sprinkler
E - LEPA (Low Energy Precision Application)
U - Unknown or not mapped

As part of the map symbols these irrigation type letters required a circle around them so that they are not confused with the special condition letters.

Example: P1-(B) indicates border strip irrigated alfalfa.

3. SOURCE OF IRRIGATION WATER

<u>Water Source</u>	<u>Code</u>
Surface water	1
Mixed surface & ground water	2
Ground water	3
Unknown source	4
Recycled or reclaimed	5

Example: P3-(B1) indicates border strip irrigated pasture with surface water as the water source.

VIII. MULTIPLE LAND USE

INTERCROPPING

Used with orchards or vineyards when intercropped with some other crop class. Indicated by a fractional symbol, with the orchard or vineyard symbol appearing in the numerator.

Example: D12-Y/F10 indicates young almonds intercropped with dry beans.

DOUBLE CROPS

Used when two consecutive crops are grown in the survey season. The first crop is indicated by enclosed parenthesis.

Example: (G)F6 indicates irrigated grain followed by field corn.

TRIPLE CROPS

Used when three consecutive crops are grown in the survey season. The first and second crops are indicated by enclosed parenthesis.

Example: (T8)(T23)T8 indicates irrigated lettuce followed by cabbage followed by lettuce.

MIXED LAND USE

Used when two to three land uses are present in one area but, because of the large degree of intermixing, cannot be delineated separately. Indicated by percentages following land use symbols. No more than three different land uses may be used in describing the area. Percentages are in increments of 10.

Example: D5 - 40% indicates irrigated peaches 40%
NV - 20% indicates native vegetation 20%
UR - 40% indicates urban residential 40%

IX. FURTHER INSTRUCTIONS, CLARIFICATIONS AND EXAMPLES

- 1) Land use class and subclass should come before the dash which separates the special condition, irrigation type, and source of water.
- 2) Water source should be the last symbol in the code. If the field has more than one crop, the source should follow the last crop.
- 3) Irrigation type and source of water must be enclosed in a circle.

LAND USE CODE EXAMPLES

Single Crop:

F1-(F3)

Indicates cotton that is furrow irrigated with ground water as the water source.

D12-Y(P)

Indicates young, irrigated almonds that are irrigated with a permanent sprinkler system.

Intercropped:

D13-Y/F10(P1)

Indicates young, irrigated walnuts intercropped with dry beans, irrigated by a permanent sprinkler system with surface water as the water source.

Double cropped:

(G-H)F6-(F2)

Indicates grain irrigated with a hand move sprinkler system followed by furrow irrigated corn, with mixed ground and surface water as the water source.

Triple Cropped:

(T8)(T23)T8-(P)

Indicates irrigated lettuce followed by irrigated cabbage followed by irrigated lettuce, all three crops irrigated by a permanent sprinkler system (when type of irrigation is not shown next to the first and second crops, the irrigation type for the last crop will be assumed for the first two crops).

(T8-(U))(T23-(U))T8-(H3)

Indicates irrigated lettuce with unknown irrigation type, followed by irrigated cabbage with unknown irrigation type, followed by lettuce irrigated with a hand move sprinkler system, with ground water as the water source.