

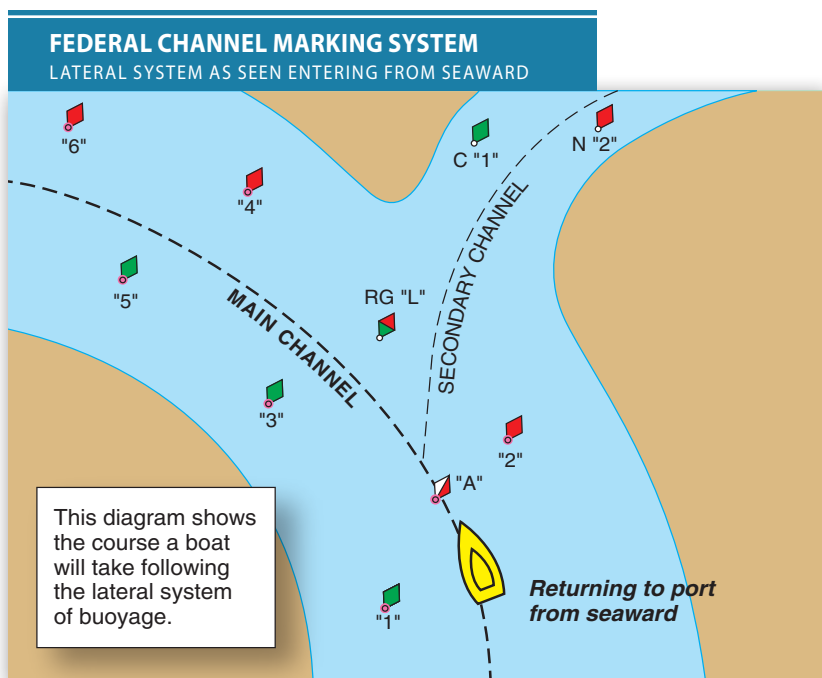
WATERWAY MARKINGS

Federal Lateral System

U.S. waterways are marked for safe navigation by the lateral system of buoyage. The system uses a simple arrangement of colors, shapes, numbers and light characteristics to show the side on which a buoy should be passed when proceeding in a given direction. The characteristics are determined by the buoy's position with respect to the navigable channels as the channels are entered from seaward.

The expression "red right returning" has long been used by seafarers as a reminder that the red buoys are kept to the starboard (right) side when proceeding from the open sea into port (upstream). Likewise, green buoys are kept to the port (left) side (see chart below).

Conversely, when proceeding toward the sea or leaving port, red buoys are kept to port side and green buoys to the starboard side. Red buoys are always even numbered, and green buoys are odd numbered. Red and white vertically striped buoys mark the center of the channel.



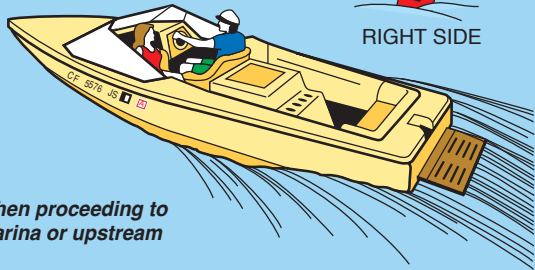
Uniform State Waterway Marking System

Most waterways used by California boaters are located entirely within the boundaries of the state. The California Uniform State Waterway Marking System has been devised for these waters. For examples of such markers, see chart below.

The waterway marking system employs buoys and signs with distinctive standard shapes to show regulatory or advisory information. These markers are white with black letters and orange borders. They signify speed zones, restricted areas, danger areas and general information.

Aids to navigation on state waters use red and green buoys to mark channel limits, generally in pairs. Your boat should pass between the red buoy and its companion green buoy.

CALIFORNIA WATERWAY MARKER SYSTEM INFORMATION AND REGULATORY MARKS



When proceeding to marina or upstream



BOATS KEEP OUT
Explanations may be placed outside the crossed diamond shape. Examples: dam, rapids, swim area



DANGER
The nature of danger may be indicated by words inside the diamond shape. Examples: shoal, reef, wreck, dam



CONTROLLED AREA
Type of control is indicated within the circle. Examples: 5 MPH, No Anchoring



INFORMATION
Official information is displayed. Examples: directions, distances, locations



MARKER ON PILING



MARKER ON SPECIAL PURPOSE BUOY



DUAL PURPOSE MARKER ON LAND



MOORING BUOY

MAIN CHANNEL BUOYS

PORT SIDE:

Odd number aids, green light only

FIXED	
FLASHING (2)	
FLASHING	
OCCULTING	
QUICK FLASH	
ISO	



 "1" "3" "5" "7"

LIGHTED BUOY:
Odd number, increasing toward head of navigation, leave to port (left) when proceeding upstream.

STARBOARD SIDE:

Even number aids, red light only

FIXED	
FLASHING (2)	
FLASHING	
OCCULTING	
QUICK FLASH	
ISO	



 "2" "4" "6" "8"

LIGHTED BUOY:
Even number, increasing toward head of navigation, leave to starboard (right) when proceeding upstream.

PREFERRED CHANNEL BUOY: No numbers, may be lettered

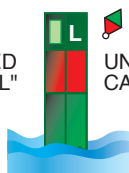
Topmost band denotes preferred channel. Letter has no lateral significance. Used for identification and location purposes.

COMPOSITE GROUP FLASHING (2 + 1) 

STARBOARD



LIGHTED BUOY "L"



UNLIGHTED CAN "L"



DAYMARK

PORT



LIGHTED BUOY "L"



UNLIGHTED NUN "L"



DAYMARK

Mooring to Buoys

Tying up to or hanging on to any navigation buoy (except a mooring buoy) or beacon is prohibited. For examples of these types of buoys, see chart on page 8 and 9.

Aids to Navigation

Navigation aids assist vessel operators in verifying their position and cautioning them of dangers and impediments. Listed below are the common identifiers as seen on pages 6–9:

- Port-hand buoys are painted green, with green fixed or flashing lights.
- Starboard-hand buoys are painted red, with red fixed or flashing lights.
- Safe water buoys, also called midchannel or fairway buoys, and approach buoys are painted with red and white vertical stripes, with flashing lights.
- Preferred channel, or junction buoys, are painted with red and green horizontal bands, with flashing lights.
- Special marks (traffic separation, anchorage areas, dredging, fishnet areas, etc.) are painted yellow. If lighted, the light may be fixed or flashing.

SAFE WATER AIDS

SAFE WATER BUOY MARKS MIDCHANNEL: No numbers—may be lettered, white light only

MORSE CODE (A) 



LIGHTED AND/OR SOUND:
Marks midchannel, pass on either side. Not numbered, may be lettered. Letter has no lateral significance. Used for identification and location purposes.

UNLIGHTED



SPHERICAL




MR

SECONDARY CHANNEL BUOYS, STARTS NEW NUMBERING SYSTEM



PORT


 C "1"
UNLIGHTED
CAN BUOY:
Odd number,
leave to port.



DAYMARK



STARBOARD

 N "2"
UNLIGHTED
NUN BUOY:
Even number, leave
to starboard.



DAYMARK