

Section 6

History and Laws of Non-Motorized Boating

6. History and Laws of Non-Motorized Boating

This discussion of the history and laws of non-motorized boating is based on: (1) a literature review of non-motorized boating and outdoor recreation; (2) a high-level review of federal and state non-motorized boating laws and regulations; and (3) interviews with selected industry experts.

This section is organized as follows:

A. *History of Non-Motorized Boating*

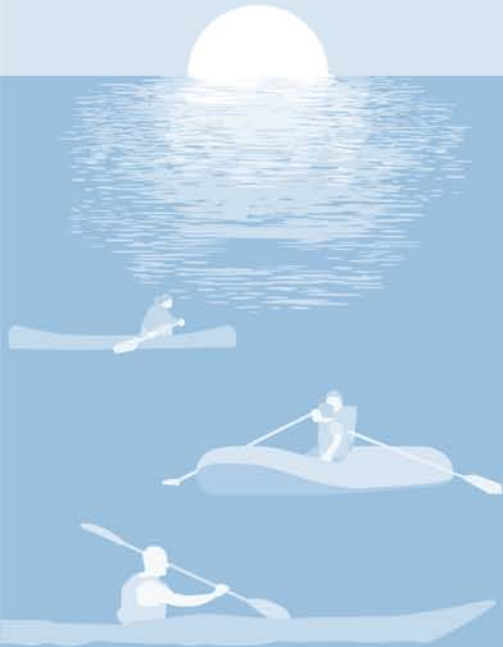
B. *Law and Regulation Issues Related to Non-Motorized Boating.*

A. History of Non-Motorized Boating

For the early years, we can discuss the history of non-motorized boating in the United States and California in parallel. This section examines the general history of outdoor recreation and the advent of non-motorized boating.

Outdoor recreation in this country is viewed to have begun in the mid 1800s, during the period known as the American transcendental movement, or Victorian Era.¹ Certainly, prior to this time there was significant use of non-motorized boats – going back thousands of years. Canoes and kayaks were used by Native Americans, and adopted by white settlers and explorers. The 3,700 mile canoe trip by Lewis and Clark, starting in 1803, is one of the most famous examples of early non-motorized boating. John Wesley Powell’s 1869 (and later) explorations of the Grand Canyon in wooden dories were also founded in exploration, not recreation.² It was following this exploratory period, in the mid- to late-1800s that non-motorized boats – canoes and dories, were first used for recreation.³

This shift from conquering or exploring nature to enjoying nature was part of a transition that started with individuals such as writers Ralph Waldo Emerson and Henry David Thoreau (*Walden*), and artist Thomas Cole, who painted large western sceneries as part of the Hudson River School.⁴ This trend of romanticizing the natural world continued after the Civil War, and expanded to include conservation. Well known outdoorsmen of the time included: Mark Twain, author of *Roughing It* and *Adventures of Huckleberry Finn*; artist Thomas Moran, whose paintings glamorized Yellowstone and Yosemite; and John Muir, who explored, wrote, and worked to conserve California’s Sierra Nevada Mountains. Yellowstone National Park was created by Congress in 1872. Yosemite was granted to the State of California by the federal government in 1864, and then declared a National Park in 1890. Tourists traveled to enjoy these areas, typically by train, starting in the late 19th century.⁵



Non-motorized boating, as recreation, began in parallel with the general interest in outdoor recreation. Two early boaters included photographers Emery and Ellsworth Kolb, who retraced John Wesley Powell's trip down the Green and Colorado rivers in 1911.⁶ Emery Kolb showed the movie of the trip at the South Rim of the Grand Canyon four times a day until his death at the age of 96. Alfred Wickett of New England is credited with being largely responsible for the first commercially produced canvas-covered canoe as the designer, chief builder, and operations manager for Old Town Canoe from 1900 to 1914.⁷ One of the first publicly recognized non-motorized boaters was Wisconsin conservationist, canoeist, and writer Sigurd Olson, who paddled, publicized the joys of canoeing, and worked to conserve wilderness starting in the 1920s.⁸

Paddler Magazine's list of the top 100 "visionaries, innovators, Olympic athletes, or legendary explorers" in paddling over the 20th century provides a snapshot into the progression of non-motorized boating over the last 100 years. While non-motorized boating started with these early innovators of the 20th century, it appeared to remain a niche interest through much of the early 1900s. Following World War II, and into the 1960s, non-motorized boating continued to grow, although it was still considered a small scale sport.

It was the Baby Boomer generation that spearheaded a new interest in outdoor recreation and getting back to nature.⁹ The growth in outdoor adventures, spurred as Baby Boomers became young adults in the 1960s and 1970s, was unprecedented. For the first time, land management agencies had to impose restrictions on recreational use, issuing permits for river-running and backpacking.¹⁰

Following the Baby Boomers, Generation X (born between 1961 and 1981) fueled a riskier approach to outdoor activities. While the Baby Boomers were seen as more idealist, "getting back

to nature", Generation X approached outdoor activity as more of a sport, often a risky sport. The growth in non-motorized boating continued as Generation X took and expanded these non-motorized boating activities, for example, fueling a growth in whitewater kayaking starting in the late 1990s.

Non-motorized boating in California was led by a core group of individual boaters, many of whom either developed new types of boats, or explored California's rivers and waterways for the first time. Much of this development and growth took place in the 1970s and 1980s, and is discussed for different boat types, below.

Much of the recent growth in non-motorized boating appears to be in recreational kayaking,¹¹ a start-up activity that makes non-motorized boating accessible to a growing number of individuals and families. On the other hand, participation in whitewater kayaking, at least at the national level, appears to be relatively flat.¹²

Another trend that some outdoor guide outfitters are seeing is the luxury outdoor trip. These outfitters are witnessing significant interest in "high-end" rafting trips – providing showers, quality food, wine, and "just a bit of whitewater". This type of trip could be popular with both the Baby Boomer generation, as they near retirement, and Generation X, as they have families and reduce their high-risk activities.

At the opposite end of the recreation spectrum, are those that no longer have time for outdoor activities. For this group, a full day on the water might be too much, and spending an hour or two on a guided trip, or boating on a nearby waterway, may become the extent of their outdoor boating activity.

Much of the growth of non-motorized boating has been linked to technological advancements in boat-building. Newer and better boats opened up rivers that were previously unnavigable, a trend

that continues today. Each new non-motorized boat type offers benefits over previous versions, either in navigability, cost, or both.

The advent of the aluminum canoe, following World War II, introduced light, rugged, and affordable canoe boats. The latest generation of shorter and wider whitewater kayaks provide maneuverability that is far superior to early models. Similarly, plastic recreational kayaks today provide the same features to another generation of non-motorized boaters. Specific advances are discussed for the major categories of non-motorized boats, below.

1. Wooden Dories

Much of the early river running took place in wooden skiffs or dories. These boats, of various designs, were generally flat bottomed, 12 to 16 feet long, and 4 to 5 feet wide, with a flat bow and pointed stern. Nathaniel Galloway, a Utah trader, developed the “lightweight” Galloway, originally at 400 pounds, and later getting it down to 243 pounds.¹³ A major innovation, credited to Galloway, was to run the river with the boater facing the rapids, rather than with the boater facing backwards. This allowed the boater to see the rocks and other hazards.¹⁴

What is believed to be the first recreational trip down the Colorado River took place in 1909, when a mining company executive, Julius Stone, hired Galloway to build four boats and guide a group from Green River, Wyoming, to Needles, California.¹⁵ This appears to be the first recreational non-motorized boating trip in California, although most of the trip took place elsewhere. The trip took just over two months, from September to November. Several other Colorado River boat trips followed, including the Kolbs’ photographic expedition in 1911.¹⁶

Two other wooden boats, the McKenzie dory and cataract boat, were used in the early and mid-

1900s for river running, both in the Grand Canyon and other rivers such as the Rogue River in Oregon, and the Middle Fork of the Salmon River in Idaho.

The cataract boat was designed by Norm Nevills in 1938, and was used for the first commercial trips down the Colorado River.¹⁷ Nevills Expeditions expanded and carried passengers down many Western rivers, including the San Juan, Green, Snake, Salmon, and Colorado until his death in 1949. Nevills was responsible for taking about one-third of the first 100 people through the Grand Canyon on the Colorado River (a figure reached in 1949).¹⁸ His company was bought by two of his employees, and then later by his daughter and son-in-law, and continues to operate rafting trips today (although no longer in wooden boats).

The McKenzie dory (also known as a driftboat) was developed to run rapids, first on the McKenzie River in Oregon, and then the Rogue River, also in Oregon. The McKenzie dory was later modified and used on the Colorado River by early river boatmen, Martin Litton and P.T. Reilly.¹⁹ Litton adopted the McKenzie boat by enlarging it and decking it over to provide storage.²⁰ He began providing commercial raft trips with these “Grand Canyon” dories in 1970, founding the outfitting company, Grand Canyon Dories.

Many of the original boats used in the Grand Canyon, including a wooden Galloway boat used between 1921 and 1923, one of Norm Nevills’ cataract boats, and a classic dory owned by P.T. Reilly, are being preserved for display at Grand Canyon National Park.²¹

Grand Canyon dory trips are still provided commercially; however, following World War II, the wooden boats were increasingly replaced by army surplus rafts and pontoons. While dories and driftboats do not have the widespread appeal of canoes and kayaks, they are used recreationally, most often for fishing, and as tenders used to service larger vessels.

2. Canoes

Canoes have a long history in North America, used for transportation, hunting, fishing, warfare, gifts, and ceremonies by Native Americans, likely for thousand of years before European settlers adopted the vessels.²² These original canoes were built of dugout wood in the Pacific Northwest, and birchbark elsewhere.

In California, Native Americans in the North Coast region used Redwood trees to build dugout canoes. These canoes were used primarily for river travel.²³ The Chumash and Tongva Native Americans in Southern California built unique wood plank canoes or tomols.²⁴ Tomols were 10 to 30 feet long, and seaworthy. Tomols were integral to Chumash's identity and economy, used for ocean travel, hunting, and trading. Tomols were built using the same technology as Polynesian canoes.²⁵

Canoes were adopted by settlers in the 1840s and 1850s for trade and hunting. Canoes were used in California for river travel, sometimes paddled by Native Americans, during the California Gold Rush.²⁶

Between 1850 and 1880, canoes were first mass-produced on the East Coast, and were also used for leisure and recreation, including regattas and races. The first cedar-strip and canvas-covered canoes were produced in Peterborough, Ontario.²⁷ The American Canoe Association, the oldest non-motorized boating organization in the United States, was formed by a group of avid paddlers in 1880.²⁸ California was still engulfed in the Gold Rush era, and most Californian's were likely not using canoes for recreation at this time.

Canoe technology did not change much from the Peterborough wood and canvas canoes until the mid-1900's. The first fiberglass canoe was built in 1942 by Tom Johnson,²⁹ although fiberglass canoes did not become popular until the 1960s.

In 1944, an executive from Grumman Aircraft Engineering went on a canoe trip using a heavy wood and canvas canoe, and the concept of the aluminum canoe was born.³⁰ The company, looking to diversify as World War II was ending, developed a 13-foot, 38 pound canoe, and later built models up to 22 feet in length. These canoes were light, rugged, and affordable.

Grumman produced more than 300,000 canoes between 1945 and 1975, with production peaking in 1974 at 33,000, fueled by the energy crisis and popular movies of the time.³¹ As aluminum canoes were replaced by plastic and fiberglass, sales dropped closer to 4,000 per year. Grumman eventually sold their canoe business; however, aluminum Grumman canoes are still being built at the original facility in Marathon, New York.³²

While aluminum canoes were popular with the general canoeing public, a number of competitive canoeists were developing and designing lighter, faster, and more efficient canoes. In 1957, some of the first cloth laminated, high performance canoes were developed.³³ Marathon canoe racer Howie Labrant, of Chicago, published *The Principles of Canoe Design* in 1962, starting the era of modern, performance canoeing. By 1974, the first Kevlar canoes were built. Most of these canoe developments took place in the East and Midwest, with start-up companies such as Sawyer Canoe and Mad River Canoe.³⁴ Wooden canoes are still produced by a few specialty manufacturers, including Sierra Boat Company of Lake Tahoe.

While canoes have been surpassed by kayaks in the last ten years, they are still popular with many boaters. Canoes have clear niche markets, although less-so in California than the Midwest and Northeast.

Outrigger canoes, originally from Hawaii, are another specialty canoe type that is popular in California coastal regions. The first California outrigger canoe race, from Avalon to Newport

Dunes, took place in 1959.³⁵ The sport, while still a niche, grew in Southern California, as did the production of fiberglass outrigger canoes. By 1965, there were 15 fiberglass boats and 7 outrigger clubs in California.³⁶ Today there are 22 Southern California Outrigger clubs and about 140 boats registered to race. The Northern California Outrigger Association also has 22 member clubs and approximately 140 boats.

3. Kayaks

Kayaks were first used by Native Americans such as the Inuit and Aleut, primarily in what is now Northern Canada, Greenland, and Alaska.³⁷ The original kayaks, meaning “hunter’s boat” were built by stretching seal skin over driftwood or whale bones. These kayaks also had air-filled seal bladders for stability, and were custom-fitted to each individual. Like canoes, early kayaks were unique in each region, with shorter and wider boats in the Bering Strait, and sleek and low kayaks in Greenland. Archeological evidence dates kayaks back at least 4,000 years.³⁸

In 1905, German Hans Klepper purchased a design for a folding canvas kayak from a German student. These “folding kayaks” were sold and used for recreation, although use was very limited.³⁹

Kayak racing became part of the Olympic Games in 1936, and kayaking clubs were popular in Europe. Steward Gardiner, an American, purchased a folding kayak and began kayaking on the Green River in October 1938 and on the Middle Fork of the Salmon River in 1939.⁴⁰

In 1941, Alexander “Zee” Grant became the first person to kayak through the Grand Canyon, again using a folding kayak. Grant also founded the second major paddling organization, American Whitewater, and ran early descents of many other American rivers.⁴¹

Fabric covered kayaks were the norm until the 1950’s, when the fiberglass kayak was

introduced.⁴² The first rotomolded plastic kayak was developed by Tom Johnson (father of the fiberglass canoe) in 1974.⁴³

Plastic kayaks were further developed and produced in the 1980’s. Plastic kayaks could be produced in only a few hours, as compared to a day for fiberglass boats, significantly reducing the cost.⁴⁴

In the late 1960’s and early 1970’s in California, a Czechoslovakian immigrant and whitewater racer, Josef Sedivec, began designing and developing whitewater racing kayaks in his garage.⁴⁵ The company is still one of the few California boat manufacturers. A number of other boaters worked on boat and paddle innovations in the 1980’s and 1990’s, many starting their own companies.⁴⁶

The development of first fiberglass, then plastic, whitewater kayaks fueled a growing interest in the sport among a small group of avid boaters.⁴⁷ Whitewater kayaking first appeared in the Olympics in 1972. Several whitewater kayak pioneers such as Rob Lesser, Walt Blackadar, and Jim Stohlquist, conducted first descents down rivers in Idaho, Colorado, and Canada in the 1970’s, often on boats they built themselves.⁴⁸ Many of these early trips were filmed and publicized on adventure television shows.

Whitewater kayaking in California was pioneered in the late 1970’s and early 1980’s, with many first descents on California rivers by Lars Holbek, author of *Whitewater Guide to California*, and mountaineer and clothing manufacturer, Royal Robbins.⁴⁹ Robbins completed first descents on now commonly run rivers such as the San Joaquin, South Fork of the American, Upper Kern, Middle Fork of the Kings, and the Grand Canyon of the Tuolumne between 1980 and 1984.

Whitewater kayaking grew significantly in the 1990’s, fueled in part by the further development of boats, as well as the emergence of the “professional kayaker”, sponsored by boating companies.⁵⁰

Sea kayaking started in the Seattle area in the 1960's, as a growing number of kayakers in the area switched from folding kayaks to homebuilt fiberglass boats.⁵¹ Commercial production of fiberglass sea kayaks did not start until 1974, when some whitewater kayak builders started to build fiberglass sea kayaks. Interestingly, a number of sea kayak boat companies were started by former Boeing engineers after layoffs in 1972, at a time when outdoor sports in general were becoming increasingly popular.⁵²

SEDA products in Southern California produced their first sea kayak in 1975.⁵³ Sea kayaking was introduced to Northern California by Bob Licht, who launched Sea Trek in Sausalito in 1982.⁵⁴ Licht, one of the first to have a rafting permit on the South Fork of the American River, sold the rafting company and switched to the tamer sea kayaking. By the 1990's, sea kayaking was expanding in Northern California, and the company has grown from six boats in 1982, to over 100 today.⁵⁵

Sea kayaking continued to grow, and in the early 1980's, many of the early Seattle manufacturers met and formed the Trade Association of Sea Kayaking, now the Trade Association of Paddlesports.⁵⁶ *Sea Kayaker* magazine was formed in 1984 by one of these initial organizers, John Dowd. That year further cemented sea kayaking as an industry, with the West Coast Sea Kayak Symposium in Port Townsend, Washington.⁵⁷

The plastic sit-on-top, or recreational kayak, which is fueling a significant growth in kayaking, was initiated through the efforts of several boaters. Bart Hauthaway, an Olympic canoeist, developed an open-topped pack canoe that started the movement towards the open-cockpit recreational kayak.⁵⁸

Tim Niemier, a Malibu surfer put depressions in a surfboard and is credited with developing the first sit-on-top-kayak in the early 1970's.⁵⁹

Niemier founded Ocean Kayak, one of California's few kayak manufacturers (now located in Washington). Ocean Kayak first produced fiberglass kayaks, before switching to rotomolded plastic in 1986.

Ann Dwyer of Kiwi Kayak is credited with developing user-friendly short, semi-decked, open-cockpit kayaks.⁶⁰

Kayaks today have evolved to a dizzying variety of specialty boats – with boats designed specifically for surfing, crabbing, fishing, scuba diving, playboating, racing, and more.

4. Rafts

The era of inflatable rafts and catarafts began after World War II, when river runners pieced together army surplus vinyl rafts and pontoons.⁶¹ These light, flexible boats were inexpensive, and could be modified to handle whitewater, many passengers, and provisions. These rafts were modified over the years, including a significant contribution from Californian Bryce Whitmore, who invented the self-bailing raft in 1967.⁶²

Grand Canyon raft guide Georgie White began running the Colorado River in 1944, and developed a 35-foot "wave-buster" raft from army surplus pontoons.⁶³ She eventually made 200 trips down the river. What is believed to be the first river concession permit in the country was issued to Bus Hatch River Expeditions in 1953 on the Green River in Dinosaur National Monument.⁶⁴ From these small beginnings, the rafting guide business expanded in the mid-1960s.

In 1969, George Wendt, a former Los Angeles school teacher who spent summers on the Grand Canyon received the first permit for oar-powered, small rafts in the Grand Canyon, establishing Outdoor Adventure River Specialists (O.A.R.S.).⁶⁵ Wendt moved the business to Angels Camp, California in 1974, and started offering rafting

trips on the Stanislaus River (before it was buried under New Melones Reservoir), as well as the American and Tuolumne Rivers. O.A.R.S. has since expanded to become one of the largest river companies in the West.⁶⁶

Another California rafting pioneer, Bill McGinnis, became a river guide at age 16, and following graduation from San Francisco State University founded Whitewater Voyages in 1975, “with two rafts and a \$500 gift from his grandmother.”⁶⁷ Whitewater Voyages is California’s largest whitewater rafting company, and annually runs about 22,000 people down seven California rivers. McGinnis has also developed guidebooks for river guides, and is active in promoting the industry.⁶⁸

River rafting in California has grown from a few pioneer rafting companies in the 1970s to about 100 companies today, providing trips on over two dozen rivers. The South Fork of the American River is one of the most-used rivers in the United States, with over 70,000 commercial rafting participants in 2006.⁶⁹

The “rafts” category of non-motorized boats also includes other inflatable rafts and boats that are not used for whitewater boating. There are a large number of inflatable boats used more recreationally on small lakes and calm rivers, as well as inflatable boats used as tenders. In some cases, there is a very gray line between an inflatable that would be considered a boat, and an inflatable that would be considered a toy. Generally, inflatable boats are low-cost, and thus attractive to first-time boat buyers.

5. Rowing Boats

Rowing is recognized as one of the oldest organized sports, with races held in England in the 1700’s.⁷⁰ The first rowing race in the United States took place in New York in 1807, and boat clubs were established in several Eastern cities in the early 1800’s.⁷¹ Yale organized the first collegiate boat

club in 1843, followed by Harvard in 1844. The first intercollegiate athletic contest in the United States was a Harvard versus Yale rowing race in 1852. Rowing was extremely popular in the mid 1800’s, with both amateur and professional races.⁷²

With the exception of Athens in 1896, rowing has been included in every modern Olympic Games. While the popularity of rowing has declined since the late 1800’s, replaced by numerous other sports (aquatic and otherwise) there are still thousands of rowing participants in California.

Rowing came to California a few years after it was popularized in the East. The University of California, Berkeley, established in 1868, started a rowing program that same year.⁷³ The first Pacific Coast Intercollegiate Regatta between the University of Washington and the University of California took place in 1903.⁷⁴

In San Francisco, two private rowing clubs followed Berkeley’s program: the South End Rowing Club was formed in 1873, and the Dolphin Club was formed in 1877.⁷⁵ Rowing in Southern California started a few years later, with the Excelsior Rowing and Swim Club (later called the San Diego Rowing Club) forming in 1888, and the country’s first women’s rowing club, ZLAC, forming in San Diego in 1892.⁷⁶ Rowing continued to have a small but avid following since the days of these early clubs, although its popularity waned during wartimes.⁷⁷ All of these early California organizations, as well as many others, are still rowing today.

Competitive and recreational rowing are still popular in California, with 68 rowing clubs within the national governing organization, U.S. Rowing, including intercollegiate programs, either club or NCAA, at most California universities.⁷⁸ San Diego hosts one of the premier rowing regattas, the San Diego Crew Classic®.⁷⁹ The Classic, started in 1973, has become one of the biggest rowing events in the United States.

6. Small Sailboats (Eight (8) feet in length or shorter)

While sailing has been a popular form of boating recreation for over 100 years, the small sailboat was not introduced until the late 1930s.⁸⁰ In 1938, New Yorker Charles MacGregor published a design for a small sailing dinghy, the MacGregor Sabot, in *Rudder Magazine*.⁸¹ Two residents of the Naples District in Long Beach, California, were looking for a small sailing dinghy, and modified the MacGregor plans for their own use. The original two Naples Sabots were built by Roy McCullough and R. A. Violette in Violette's garage during World War II. Early Sabots were built from plywood, although now many are made with fiberglass.⁸²

Official plans for the boat, which was garnering attention in the Long Beach area, were drawn up in 1946, and the Naples Sabot One-Design Association was established in 1946.⁸³ The boats, which were popular for teaching beginners and racing, spread to other yacht clubs in Southern California. In 1947 there were 100 Sabots in existence, and 66 additional Sabots were built in 1948. The popularity of the Naples Sabot increased in May 1949, when a four-page illustrated article on the boat appeared in *Popular Mechanics Magazine*.⁸⁴ The Naples Sabot One-Design Association received requests for Sabot plans from around the United States and the world. According to the Mission Bay Yacht Club in San Diego, about 10,000 Sabots have been built, and 170 boats competed in the last Junior Sabot Nationals.⁸⁵

Like the Sabot, another popular small sailing dinghy, the El Toro, was designed in the late 1930s, based on MacGregor's Sabot plans.⁸⁶ The El Toro was developed by the Richmond Yacht Club in the San Francisco Bay Area, filling a need for a training boat and yacht tender. El Toros are the most popular sailing dinghy on the San Francisco Bay, and are used extensively for teaching and racing.⁸⁷ There are about 11,000 El Toros in existence (anywhere), although only about 1,000 are currently active in California.⁸⁸

The Optimist is a third category of small sailboat. Optimists (or "Opti's"), are a national and international racing class for children under fifteen years old.⁸⁹ These boats were introduced in South Florida in the 1950's. Optimists have historically been popular on the East Coast and internationally. Over the last five years, Optimists have been introduced to the San Francisco Bay Area and Southern California, and are becoming increasingly popular in California. Reportedly a number of California yacht clubs are purchasing these boats for their junior learn-to-sail programs.⁹⁰

7. Sailboards or Windsurfers

The invention of the sailboard is credited to S. Newman Darby in Pennsylvania in 1964.⁹¹ Darby had experimented with various hand-held sail systems since the late 1940's, but did not come up with the sailboard design, using a universal joint on the mast foot, until 1964.⁹² Darby and family members applied for a patent and attempted to manufacture sailboards, but the operation never got off the ground, and the patent application was dropped. Darby published sailboard plans in *Popular Science*, and continued to sell plans.⁹³

In Southern California in the late 1960's, sailor Jim Drake and surfer Hoyle Schweitzer designed a "windsurfer", a cross between these two activities.⁹⁴ The windsurfer was intended to provide the benefits of sailing, without the cost and inconvenience.⁹⁵ Drake and Schweitzer applied for a patent in 1968, and in 1970 established Windsurfer International, and began manufacturing sailboards, first in Schweitzer's garage, and later moving to a manufacturing facility in Torrance.⁹⁶

Windsurfing did not gain popularity in California (or the rest of the United States) until late in the 1970's; however, the sport caught on in Europe in the early 1970's.⁹⁷ Windsurfing eventually caught on in California, and in other locations such as the

Columbia River Gorge, in Oregon. Today, windsurfing does not have the mass popularity it did in the 1980's and early 1990's. However, there is still a niche following in the sport.

8. Kiteboards

While kites have been used to propel vehicles and vessels as far back as the 12th century, kiteboarding (also called kitesurfing) is the newest of the non-motorized boating activities described in this report. The first kiteboarding companies were established approximately ten years ago.⁹⁸ Kiteboarding was developed simultaneously by father-son engineers and waterskiers, Bill and Corey Roeseler of Seattle, and brothers Dominique and Bruno Legaignoux of France, both sailors and windsurfers.⁹⁹ The Roeseler's developed and patented the "kiteski", water skis powered by a two line kite controlled via a bar mounted winch/brake.¹⁰⁰ At about the same time, the Legaignoux's were focusing on kite technology, and developed an inflatable kite that could be relaunched from the water.¹⁰¹

Both families started manufacturing kiteboards in 1994, although they were slow to gain market attention. Windsurfers Laird Hamilton and Manu Bertin were important in popularizing kiteboarding when they demonstrated the "extreme sport" in Maui in 1996.¹⁰² The first kiteboarding competition was held in 1998, and several kiteboarding schools opened at that time. The technology behind kiteboards has continued to evolve, with variations in kite types and safety improvements.¹⁰³

In 1998, there were an estimated 30 kiteboarders worldwide, a number that had grown to over 150,000 by 2006.¹⁰⁴ The recent development of kites that can be easily "powered down" to avoid accidents may increase the popularity of the sport.

Kiteboarding is popular in certain areas in California, with Santa Cruz being one of the top kiteboarding locations in the world.¹⁰⁵ Kiteboarding is increasingly popular in the San Francisco Bay Area.

9. Dragon Boats

Dragon boat racing has a history dating back over 2,000 years in China; however, it has become popular in California over the last eleven years.¹⁰⁶ The California Dragon Boat Association was established in 1996, and the San Francisco International Dragon Boat Festival just celebrated its eleventh year in September 2006.¹⁰⁷

Dragon boat racing was popularized by the Hong Kong Tourism Association, which started shipping dragon boats to other countries to promote tourism around 2000.¹⁰⁸ Since 2000, dragon boat racing has become an organized international sport. Worldwide, there are an estimated 20 million to 50 million dragon boat racing participants.¹⁰⁹ According to California Dragon Boat President Linda Chieu, dragon boat racing is a fast growing sport.¹¹⁰

There are currently dozens of club, college, high school, and youth dragon boat teams in California, with the majority based in the San Francisco Bay Area and Southern California. Proponents of dragon boating note that it is a "valuable cultural, social, and community sport that promotes awareness, teamwork, and diversity."¹¹¹

B. Law and Regulation Issues Related to Non-Motorized Boating

In this report subsection, we discuss (1) definition issues related to non-motorized boating, (2) high level law and regulation issues related to non-motorized boating, and (3) an overview of access to waterway issues for non-motorized boating. All three of these non-motorized boating issue areas have considerable ambiguities and open-ended resolutions. Consequently, we present these three issue areas at a high overview level.

1. Definition Issues Related to Non-Motorized Boating

A starting definition of non-motorized boats in California could be as follows: vessels propelled solely by oars or paddles; sailboats eight (8) feet and under without motors; sailboards; and kiteboards. This definition essentially excludes those vessels required to be registered by the California Department of Motor Vehicles (DMV).

DMV requires the following vessels to be registered:¹¹²

Generally, every sail-powered vessel over eight feet in length, and every motor-driven vessel (regardless of length), that is not documented by the U.S. Coast Guard which is used, or on the waters of this State, are subject to registration by the Department of Motor Vehicles. The vessel must be located in California.

The DMV term “vessel” applies to every description of water-craft used, or capable of being used, as a means of transportation on water, except the following:

A seaplane on the water

A watercraft specifically designed to operate on a permanently fixed course and guided by a mechanical device that restricts the watercraft’s movement to the fixed course

A floating structure that is designed and built to be used as a stationary waterborne residential dwelling, which, (a) does not have, and is not designed to have, a mode of power of its own, (b) is dependent for utilities upon a continuous utility linkage to a source originating on-shore, and (c) has a permanent, continuous hookup to a shore-side sewage system.

The following vessels do not have to be registered in California:

Vessels propelled solely by oars or paddles

Non-motorized sailboats that are eight feet, or less, in length

Non-motorized surfboards propelled by a sail and with a mast that the operator must hold upright

A ship’s lifeboat (a dinghy is not a lifeboat)

Vessels currently and lawfully numbered (registered) by another state that are principally used outside California

Vessels brought into California for racing purposes only (exempted only during races and tune-ups).

Commercial vessels of five (5) net tons, or more, or thirty (30) feet, or more, in length, must be registered (documented) by the U.S. Coast Guard.

The United States Coast Guard (Coast Guard), in contrast to the California DMV, broadly defines the word “vessel” to include every description of watercraft, including non-displacement craft and seaplanes, used or capable of being used, as a means of transportation on water.¹¹³ A non-motorized boat, for purposes of this non-motorized boating study, may be a vessel as the term is used by the Coast Guard, but a vessel (at least as defined by the Coast Guard) is not necessarily a non-motorized boat.

Likewise, the Coast Guard defines the terms “power-driven vessel” to mean any vessel propelled by machinery, and “sailing vessel” to mean any vessel under sail, provided that propelling machinery, if fitted, is not being used. A non-motorized boat for purposes of this non-motorized boating study is not a power-driven vessel as defined by the Coast Guard, but it could be a sailing vessel, if it were short enough in length.

A sailboard is considered a vessel by the Coast Guard. The Coast Guard considers the terms “sailboard” and “windsurfer” synonymous. A sailboard is not considered like a surfboard, or sporting goods equipment, by the Coast Guard. A sailboard is subject to the Federal Navigation Rules of the Road (as are other vessels), but it is not subject to Coast Guard life jacket regulations. A sailboard is subject to life jacket requirements imposed by the State of California.

A non-motorized boat for purposes of this non-motorized boating study essentially includes non-powered watercraft (such as canoes, kayaks, inflatable boats, and rowing boats), and wind powered

watercraft (such as small sailboats, sailboards, and kite boards). The non-powered watercraft are propelled with paddles, oars, or poles; and the wind powered watercraft have no propelling machinery whatsoever, and are relatively short in length.

A surfboard is usually hand and/or wave powered (it is not propelled by paddles, oars, or poles); and it is not propelled by the wind, and hence usually a surfboard is not a non-motorized boat for purposes of this non-motorized boating study. Likewise, inner tubes (hand and current propelled), and fisherman float tubes (fin and current propelled), also are not considered non-motorized boats for purposes of this non-motorized boating study.

There are a few exceptions where large custom surfboards may be propelled by the operator standing on the board, and using long paddles (stand-up, paddle surfing). These kinds of specialized surfboards are considered a non-motorized boat for purposes of this non-motorized boating study, and these kinds of surfboards are classified into the “other” non-motorized boat category.

The above “first order” definition of non-motorized boats seems reasonable, until one further starts considering the varying nuances and ambiguities that can occur in practice. In classifying non-motorized boats for the statewide and regional random surveys in this non-motorized boating study, we identified seven (7) broad, non-motorized boat categories as follows:

1. *Canoes*
2. *Kayaks*
3. *Inflatable Boats and Rafts*
4. *Small Sailboats (eight (8) feet in length or shorter)*
5. *Rowing Boats (including row boats, shells, sculls, dories, and drift boats)*
6. *Sailboards and Kiteboards*
7. *Other Non-Motorized Boats.*

Specific types of non-motorized boats within only two of these seven categories (#2 and #6, above) clearly fall within the non-motorized boat and non-registered California universe – namely kayaks and sailboards/kiteboards. All of the other five categories (#1, #3, #4, #5, and #7) include what we call some “gray-area” non-motorized boats.

Many canoes, inflatable boats, and rowing boats can be used interchangeably with, or without, motors. In DMV language, these boats may not be propelled **solely** by oars or paddles. Although any boat with a motor should technically be registered with DMV, in reality these small boats may, or may not, be registered with DMV.

Precise quantification of the extent of the non-motorized boat universe that overlaps with DMV’s registered boat definition system can be unclear. **Table 6.1**, on the next page, shows the gray areas related to non-motorized boat definitions for California.

For purposes of this non-motorized boating study, we tried to exclude **any** boat that was already registered with DMV from our study definition of a non-motorized boat. As Table 6.1 illustrates, we may have included some boats in our study definition that technically should not be included, and excluded some boats that could be included.

The inclusion of the “gray-area” non-motorized boats within **Category A**, in Table 6.1, in the statewide random survey leads to some over-estimation of the number of non-motorized boats in California. These boats, which may be used both with motors, and without motors, should be registered according to DMV requirements. Thus, these boats technically should not be within our estimation of non-motorized boats. However, there may be owners that do not register these boats, particularly if they often use these boats without a motor.

Table 6.1
“Gray-Area Non-Motorized” Boats in California

Boats Included in this NMB Study Resulting in Potential Over-Estimation	Boats Excluded from this NMB Study Resulting in Potential Under-Estimation	
<p>Category A</p> <p>Boats with/without motors that should be DMV registered, but are not, which could include:</p> <ol style="list-style-type: none"> a. Canoes with/without motors b. Inflatable boats and rafts with/without motors c. Rowing boats (including row boats, shells, sculls, dories, drift boats) with/without motors d. Sailboats greater than 8 feet in length with/without motors e. Sailboats 8 feet in length or shorter with/without motors f. Other boats with/without motors 	<p>Category B</p> <p>Boats without motors that are currently DMV registered, but do not technically require DMV registration, which could include:</p> <p style="padding-left: 20px;">Kayaks</p> <ol style="list-style-type: none"> a. Canoes b. Inflatable boats and rafts c. Rowing boats (including row boats, shells, sculls, dories, drift boats) e. Sailboats 8 feet in length or shorter f. Other boats propelled solely by oars or paddles 	<p>Category C</p> <p>Boats that are used with/without motors that are currently DMV registered, which could include:</p> <ol style="list-style-type: none"> a. Canoes with/without motors b. Inflatable boats and rafts with/without motors c. Rowing boats (including row boats, shells, sculls, dories, drift boats) with/without motors d. Sailboats greater than 8 feet in length with/without motors e. Sailboats 8 feet in length or shorter with/without motors f. Other boats with/without motors

Boaters in this Category A were included within our primary data surveys and had input on non-motorized boating facilities and issues. Including these Category A boats did not result in double-counting with a separate DBW study of primarily motorized boats, the *California Boating Facilities Needs Assessment (BNA)*, because these boats were not within DMV registration records.

The exclusion of the “gray-area” non-motorized boats within **Category B**, in Table 6.1, from the statewide and regional random surveys resulted in an under-estimation of the number of non-motorized boats. It is likely that some non-motorized boat owners register their boats with DMV, even though DMV registration is not technically required. These non-motorized boat owners may perceive benefits, such as proof of ownership, from DMV registration. These Category B boats are already included in the BNA, so although they could more accurately be included within this study of non-motorized boats, they have at least been included in another statewide DBW study.

Excluding boats within **Category C**, in Table 6.1, did not technically result in under-estimation of the number of non-motorized boats. These boats are technically required to be DMV registered, so they are correctly excluded from the study. However, these are the same types of boats as Category A, except Category C boats are DMV registered. Including these Category C boats would result in double-counting boats that are in the BNA. It is possible that some boaters rarely use these DMV registered boats with a motor, in which case we did not obtain survey input from this portion of non-motorized boaters.

While we recognize that our definition of non-motorized boats resulted in some over-estimation, and some under-estimation, of the number of California non-motorized boats, it was important to try to draw clear lines of distinction around the potential universe of non-motorized boats. It is possible that Category A “over-estimation” boats may have been offset one-for-one by Category C “under-estimation” boats, resulting in little survey estimation bias, for purposes of this non-motorized boating study. Category B boats could

thus result in some small, net under-estimation of non-motorized boats.

Any boat registered with DMV was clearly already within the universe of boats analyzed in the prior *California Boating Facilities Needs Assessment*. Including these boats within this non-motorized boating study would have resulted in double-counting vessels.

As of December 31, 2005, DMV registered 8,086 rowboats, 950 kayaks/canoes, and 5,541 other hand propelled vessel types, out of 963,758 total registered vessels in the State. Presumably, some of these rowboats and kayaks/canoes were used with, and without, motors. It is questionable why any hand propelled vessels were ever registered at all with the State DMV. Going forward, a clearer California DMV definition of boats that must be registered in the State, and better enforcement of DMV boater registration, could help alleviate some of these challenges associated with obtaining a more precise definition of non-motorized boats, and with categorization of “gray-area” non-motorized boats.

Without legal clarification at the federal and/or state levels, the definition of non-motorized boats will continue to remain ambiguous. There are numerous characteristics that help describe non-motorized boats, including: length, use of a motor, acquisition costs, where purchased, boat construction materials, propulsion variant, and how and where the vessel is used. Unfortunately, each of these characteristics has its own set of ambiguities. If one then combines these numerous characteristics, there can be even more ambiguity – for example in the extreme: Is a short, but expensive, vessel a non-motorized boat? Is a long, but inexpensive vessel, a non-motorized boat?

The statewide random survey did not include a question about the length of a respondent’s non-motorized boat (with the exception of small sailboats, which were specifically defined in

California law by length). Depending on the type of vessel, non-motorized boats can range from only a few feet long, to over sixty feet long. How would one realistically utilize length in a non-motorized boat definition? A kayak or kiteboard may be less than four feet in length, and yet be classified as a non-motorized boat. An inflatable raft of only four feet in length would likely be classified as a “toy”, but at exactly what length does that inflatable raft shift from being a “toy” to a non-motorized boat?

Many non-motorized boats, including inflatable boats, canoes, and sailboats, can be used with, or without, motors (either gasoline or electric). Legally, if the owner has a motor for their boat, it must be registered with DMV. However, many such vessels may not be registered, and many such vessels may be used primarily without a motor. In these cases, even though the boat is not technically defined as non-motorized, it is being used as a non-motorized boat. Some of these kinds of boats may be defined as non-motorized in this study.

The type of propulsion is typically one of the defining characteristics for a non-motorized boat. If the vessel is propelled by paddles or oars, as in the partial study definition, it would typically be classified as a non-motorized boat. Do the paddles or oars have to be of a certain length, to qualify? The study definition also included wind-propelled vessels, such as small sailboats, sailboards, and kiteboards. There also are inflatable boats, kayaks, and canoes that are propelled with sails which were included within our definition. Many types of vessels, including inflatable boats, are used with different propulsion methods at different times: with a motor, with paddles, with a sail, or simply floating. The same vessel may be used by any one of these different methods, on any given day.

How much an individual spends on a vessel may be another means to categorize it as a non-motorized boat, as compared to a “toy”. Like the

other characteristics, there is also ambiguity related to costs. Where does one draw the line between expenditure for a “toy”, and expenditure for a boat? If one spends less than \$50 on an inflatable item, they are likely purchasing a toy. But when does it become a non-motorized boat? At \$100? At \$200? At \$300? What about purchase prices for used inflatable vessels? Furthermore, one can spend a significant amount of money on “toys”, at any age.

Another characteristic that could be factored into the definition of non-motorized boats is where it was purchased. If a vessel was purchased at a specialty boating store, should it be classified as a non-motorized boat? Can one also purchase floating “toys” at these boating stores? Conversely, if an item was purchased at “Big 5” or “Wal-Mart”, is it not a non-motorized boat? What if an inflatable boat was purchased at “Wal-Mart” and it cost \$200, and it was 12 feet long with wooden paddles? There is simply too much variability in the types of products available at different consumer outlets to put much weight on purchase location as a defining factor for non-motorized boats.

The type of construction material for a non-motorized boat could be another defining factor. Certainly, a hard-shell plastic or fiberglass vessel would typically be classified as a non-motorized boat. Conversely, a thin vinyl float toy is not classified as a non-motorized boat. Once again, there is a significant level of ambiguity in between these two extremes. Is a thicker vinyl inflatable boat a non-motorized boat? How thick? Exactly what blend of plastic, canvas, and/or rubber construction material is required for a non-motorized boat? Does an inflatable non-motorized boat have to be made of PVC, rubberized canvas, or hypalon fabric?

Another defining characteristic may be how, or where, the non-motorized boat is used. Of course, a vessel can be used in many ways, and in many different types of waters. If one only uses an inflatable boat in their swimming pool, then perhaps it would be classified as a toy (even if it

cost \$1,000). If one only uses an inflatable boat to paddle in lakes, then perhaps it would be classified as a non-motorized boat (even if it cost \$300). But what about a small pond? Is there a size of waterway where the non-motorized boat use definition would switch from “toy” to boat?

Both the statewide and active-user surveys show that participants used their non-motorized boats for a wide variety of purposes, ranging from recreation, to competition, to transportation. Participants also utilized these non-motorized boats in a wide variety of waterways, ranging from local ponds to the Pacific Ocean. How would one classify certain activities, or locations, as non-motorized boating, and others as not?

2. Law and Regulation Issues Related to Non-Motorized Boating

There is Federal Law and State of California Law related to non-motorized boats and boating. Also, there are National and State Park requirements, and finally local jurisdiction (city, county, and water district) regulation requirements regarding use of non-motorized boats. Local governments regulation of recreational boating in waters within their jurisdiction can include access restrictions; time-of-day restrictions; speed zones; special-use areas; prohibitions on consumption of alcoholic beverages on certain waterways during holiday periods; and sanitation and pollution controls.

The United States Congress and the California Legislature have enacted laws to (1) standardize safe vessel construction, (2) adopt rules of the road, and (3) provide boating safety programs to enhance safety and save lives. Following are four of the more significant Federal laws, and one of the more significant California laws, that have shaped boating safety programs for the California boating public, including non-motorized boating.

FEDERAL LAWS

The Motorboat Act of 1940

This Act set up the different classes of recreational boats. The Act required minimum equipment for boats, and made the boater responsible for the equipment.

The Federal Boating Act of 1958

This Act required the operator of any boat involved in an accident causing personal injury to stop, render assistance, offer identification, and file a written report. Based on statistics published by the Coast Guard, the Act allowed the Coast Guard to make findings and recommendations about the prevention of accidents. The Act also permitted the Coast Guard to impose civil penalties for negligent operations. The Act required the numbering of all undocumented vessels propelled by machinery of more than ten horsepower. The Act promoted boating safety and cooperation between the states and federal government in the interest of uniformity of boating laws.

The Federal Boat Safety Act of 1971 (as Codified in Title 46 USC)

This Act established minimum safety standards for boats and associated equipment; authorized financial assistance to the states; directed that a Boating Safety Advisory Council be established; provided for the numbering of all undocumented vessels equipped with propulsion machinery; provided penalties for negligent operators; prescribed duties related to marine casualties assistance and information; allowed the Secretary to prescribe regulations; set manufacturer's standards and defective vessel recalls; allowed the Coast Guard to terminate unsafe operation; and prescribed registration standards for states to follow. The U.S. Coast Guard became the official regulatory authority in Federal waters for matters under the Federal Boat Safety Act of 1971.

The Surface Transportation Assistance Act of 1982

This Act encouraged greater and continuing uniformity of boating laws and regulations among states and the federal government; a higher degree of reciprocity and comity among these several jurisdictions; and closer cooperation and assistance between the federal government and states. States that had an approved safety program could apply for financial assistance.

CALIFORNIA LAWS

The following is the most significant California legislation shaping boating safety programs for the Californian boating public.

California Harbors and Navigation Code (Sections 650 through 674)

Chapter 5, Article 1, Sections 650 through 674, of the Harbors and Navigation Code, provides statutory authority for the California Department of Boating and Waterways to promote safety for persons and property in, and connected with, the use and equipment of vessels, and to promote uniformity with Federal laws relating thereto.

* * * * *

California boating law is also found in excerpts from California Corporations, Education, Fish and Game, Government, Health and Safety, Penal, Public Resources, Unemployment Insurance, Vehicle, and Water Codes; and the California Code of Regulations.

With regards to State of California law, non-motorized boats were purposefully defined to not include any boat that was required to be registered with the California Department of Motor Vehicles as a vessel. Therefore, Federal, and State of California, Vessel Registration Laws are inapplicable to non-motorized boats.

Besides Vessel Registration Laws, two applicable areas of non-motorized boating law are Boating Safety Laws and Navigation Rules (International and Inland). We do not attempt to address the extensive body of Federal and State of California Boating Safety Laws (including safety equipment requirements), or Federal Navigation Rules, herein, as far as they pertain, or do not pertain, to non-motorized boats.

In lieu of an exhaustive review of Federal and California laws applicability to non-motorized boats, we provide a few examples of selected Federal and State laws application to non-motorized boats.

a. Boating Safety Equipment for Non-Motorized Boats

There are many categories of boating safety equipment requirements, both Federal and State of California, such as fire extinguishers, marine sanitation devices, running and anchor lights, visual distress-signaling devices, sound producing devices, life jackets, etc. Below, we use life jackets as an example of the various safety equipment requirements for non-motorized boats.

Federal Life Jacket Requirements for Non-Motorized Boats

Federal life jacket requirements for non-motorized boats are guided by the Code of Federal Regulations, Title 33 (Navigation and Navigable Waters), Chapter I (Coast Guard, Department of Homeland Security), Part 175 (Equipment Requirements). Part 175.11, Life Jacket Applicability, applies to all recreational vessels that are propelled, or controlled, by machinery, sails, oars, paddles, poles, or another vessel.

Under Federal law, no person may use a recreational vessel unless at least one life jacket (either Type I, II, III, or V, and must be U.S.C.G. approved) is on-board for each person. For a recreational vessel 16 feet or more in

length, in addition to the above life jacket requirements per person, one Type IV life jacket is required. Also, no person may operate a recreational vessel with any child under 13 years old aboard unless each such child is either wearing an appropriate life jacket, approved by the U.S. Coast Guard, or is below decks, or in an enclosed cabin.

Table 6.2, on the next page, summarizes Federal life jacket requirements for non-motorized boats. “Large” canoes and large kayaks, and some “racing” non-motorized boats (including shells and sculls) have some Federal life jacket requirement exemptions.

Sailboards are exempted from Federal life jacket requirements, though it is not clear if kiteboards are also exempted. At the time of this writing, the U.S. Coast Guard confirmed that the life jacket exemption for sailboards had not been formally extended to kiteboards, through either the Code of Federal Regulations, or updates in the Federal Register. Coast Guard spokesmen stated it is presumed that local California Coast Guard Stations probably, in practice, treat kiteboards like sailboards, with regards to the life jacket requirement.

Legally, California could decide to establish their own sailboard life jacket carriage requirements, though it has not done so at this time. The State may determine whether or not life jackets should be worn and/or carried on sailboards, based on climate and navigation conditions within its boundaries.

The precise definition of each non-motorized boat impacts its applicability to life jacket standards. For example, a “racing” canoe and a “racing” kayak are exempted from Federal life jacket requirements, but a normal canoe and a normal kayak are not exempted, unless they are a large canoe or large kayak, and then they are exempted only from the Type IV requirement.¹¹⁴

Table 6.2
Federal Life Jacket Requirements for Non-Motorized Boats

Non-Motorized Boat	Less than 16 Feet	Greater than, or Equal to, 16 Feet
1. Canoe	Required	<i>Exempted from Type IV life jacket</i>
Racing Canoe	<i>Exempted</i>	<i>Exempted</i>
2. Kayak	Required	<i>Exempted from Type IV life jacket</i>
Racing Kayak	<i>Exempted</i>	<i>Exempted</i>
3. Inflatable Boat/Raft (with paddles)	Required	Required
4. Small Sailboat	Required	Required
5. Rowing Boat	Required	Required
Row boat	Required	Required
Shell (racing)	<i>Exempted</i>	<i>Exempted</i>
Scull (racing)	<i>Exempted</i>	<i>Exempted</i>
Dory	Required	Required
Drift Boat	Required	Required
6. Sailboard	<i>Exempted</i>	<i>Exempted</i>
7. Kiteboard	Required	Required
8. Other	Required	Required

Another non-motorized boat definition example is an inflatable boat or raft, used without paddles or oars, of any kind, and hence this boat may not even be considered a recreational vessel for Federal purposes, and thus could be totally exempted from the Federal life jacket requirements, not unlike a toy inner tube.

California Life Jacket Requirements for Non-Motorized Boats

In addition to Federal life jacket laws, under State of California law (California Boating Law, Section 658) every person who operates a non-motorized boat that is 26 feet, or less, in length must have every person onboard who is 11 years of age, or less, wearing a Type I, II, III, or V life jacket, unless the person is restrained by a harness tethered to the vessel, or is in an enclosed cabin. Therefore, California life jacket law has a lower age requirement than the Federal child definition, and also has a tether condition.

California law takes precedence over Federal law with regard to the child life jacket requirement on all State waters. Except for the difference in child life jacket law between Federal law and California law, California adopts all the Federal life jacket requirements in Table 6.2.

b. Navigation Rules for Non-Motorized Boats

The body of Federal Navigation Rules (“rules-of-the-road”) is lengthy and complex. Copies of these rules may be obtained from the Superintendent of Documents, U.S. Government Printing Office. The Navigation Rules establish actions to be taken by vessels to avoid collision. The Rules are divided into two parts, Inland and International. Inland Rules apply to vessels operating inside the line of demarcation, while International Rules apply outside the line of demarcation.

Demarcation lines divide the high seas from harbors, rivers, and other inland waters of the United States, for the purpose of determining the applicability of Inland Rules in lieu of the International Rules. International Rules are tantamount to the International Regulations for Preventing Collisions at Sea, 1972 (72 COLREGS), while the Inland Rules are synonymous with 33 Code of Federal Regulations 80 of the United States Code.

The State of California generally has no “rules-of-the-road” of its own, and adopts Federal requirements in this area. California adopts the Federal “rules-of-the-road” by reference, through Title 14 of the California Code of Regulations, and the Federal Inland Navigation Rules are summarized in California Boating Law.

What vessels are required to comply with the Navigation Rules? In Rule 3, the word *vessels include every description of watercraft, including non-displacement craft and seaplanes, used or capable of being used as a means of transportation on water*. Courts have interpreted transportation to not just include passengers, but also goods and services. The navigation rules address vessels, not whom or what is controlling them.

Where do kayaks, canoes, etc. fit into the Navigation Rules? Neither the International nor Inland Navigation Rules address these non-motorized boats per se, except with regards to “vessels under oars” in Rule 25, regarding lights. One could infer that a “vessel under oars” should be treated as a “sailing vessel” since it is permitted to display the same lights as one, but, ultimately the issue of “whom ‘gives way’ would fall to” could be required by the ordinary practice of seamen, or by the special circumstances of the case (Rule 2).

Sailboats generally have different Navigation Rules than power-driven vessels. Generally, non-motorized boats are treated more like sailboats

under the Federal Navigation Rules. For example, if the vessel is propelled under oars at night, it should display lights like a sailboat, if practical. As an option, the non-motorized boat may carry a flashlight or lighted lantern that can show a white light in sufficient time to prevent collision.

Since Navigation Rules 1 through 11 apply to all vessels, these presumably would apply to non-motorized boats. Rules 9 and 10 may be the most applicable to non-motorized boats. Rule 9 states that vessels of less than 20 meters shall not impede the passage of a vessel which can safely navigate only within a narrow channel or fairway. Rule 10 says that a vessel of less than 20 meters may use inshore traffic zones; however, they shall not impede the safe passage of a power-driven vessel following a traffic lane.

The Navigation Rules do not clearly cover a whole host of possible situations for non-motorized boats. According to the Coast Guard, two principles come into play when situations are not specifically covered by “rules-of-the-road”, namely Relative Maneuverability and Negligent Operation. Under the principal of Relative Maneuverability, whichever vessel can best avoid a collision under the circumstances is generally required to keep clear. Under the principle of Negligent Operation, one cannot operate a vessel in violation of common sense or without using reasonable precautions.

What some of these Navigation Rules may mean is that non-motorized boats should, whenever possible, stay out of channels used by large vessels. This issue of non-motorized boat interference has become an occasional problem with small sailboats, sailboards, kiteboards and even kayaks that operate in parts of California’s San Francisco and Santa Monica Bays, near the vicinity of big commercial ships.

Although the Rules of the Road apply to human-powered boats and beachable sailcraft,

they are not specific to these types of recreational boats. The Rules lack codes of conduct for interactions between certain vessel types that are common on the State’s waters, including sailboats and kayaks. Regardless of the type of interaction, the Rules oblige a boater to try to avoid collision. In practical application, this usually means that smaller, more maneuverable boats (albeit non-motorized) will have to get out of the way of a larger vessel.

A safety issue with non-motorized boaters is that paddle boaters and board sailors are not well-connected with some sources of maritime safety and security information. For example, the number of human-powered boaters carrying VHF radios is limited.

c. Summary of Safety Laws and Navigation Rules Related to Non-Motorized Boating

In general, most navigation rules are applicable to non-motorized boats, but many safety equipment carriage requirements may not be applicable. This distinction can create confusion for non-motorized boats. On the one hand, non-motorized boats are generally treated as “serious” vessels as far as “rules-of-the-road” are concerned, but non-motorized boats may be treated essentially as “toys” as far as some safety equipment requirements are concerned.

Some non-motorized boats are caught in the dilemma of being treated more as a novelty craft used as a swimming toy, than a vessel used or capable of being used for transportation. Some non-motorized boaters are concerned they may lose “rules-of-the-road” privileges and responsibilities, as well as being banned (like inner tubes, for example) from some waters.

With the proliferation and evolution of non-motorized boats, it would be prudent to review relevant Federal and State of California boating

laws for applicability to non-motorized boats. It would be helpful to clarify these laws’ application to non-motorized boats, including consistency across the various categories of non-motorized boats, especially if there is no justifiable reason for legal treatment inconsistencies to exist.

3. Access to Waterway Issues Related to Non-Motorized Boating

Access to waterways is a key issue for non-motorized boating. Whereas motorized boaters have a well-defined system of launch ramps and water access, non-motorized boaters generally have not historically had their own dedicated access to waterways, though they can often use the same launch ramps as motorized boaters.

An increase in kayaking in the last ten years has accentuated water access issues and conflicts of waterway uses in California and elsewhere. Non-motorized boater access issues have stressed California private property rights through trespassing violations, and also put some land use pressures on ecologically sensitive areas. In recent years, there has been an effort to try to help manage non-motorized boating better in this State.

a. California Laws Focusing on Improving Access to Non-Motorized Boating

California Recreational Trails Act

Under the 1974, California Recreational Trails Act (AB 3594), DBW is authorized to pursue activities which will increase opportunities for recreational boating on designated waterways through the study and identification of recreational resources and potential boating trail routes. DBW is responsible for the Boating Trails Element, of the Recreational Trails Plan, and is authorized to render assistance to governmental agencies to implement the Boating Trails Plan.

San Francisco Bay Area Water Trail Act

Planning is moving ahead on California's first official water trail, the San Francisco Bay Area Water Trail, created by State law (AB 1296), in 2005. This trail would circle the Bay, with the possibility of more than eighty (80) locations for paddle watercraft launch and retrieval on the Bay.

On, or before, January 1, 2008, the San Francisco Bay Conservation and Development Commission is required to prepare, and submit to the State Legislature, the San Francisco Bay Area Water Trail Plan. This Act designates the State Coastal Conservancy as the lead agency in the funding and development of projects to implement the Plan.

Non-motorized, small boating access onto the Bay is often limited by launch design, and availability of parking and other launch site facilities (e.g., restrooms). For multi-point trips, water trail users need access points that are near to each other, and multi-day trips require overnight accommodations at trail heads. Additional access issues are launch site safety and security, user conflicts, and accessibility for persons with disabilities.

b. California Laws Challenging Access to Non-Motorized Boating

Non-motorized boaters are constantly being challenged by water access issues due to the unstructured and decentralized nature of many non-motorized boating activities. For example, a kayaker may first access a navigable stream or river by crossing through public lands, continue by paddling down the stream or river running through the private lands, and then finally exit

downstream or down river, on public lands. However, if the kayaker exits the stream across someone's private property, they face the risk of a trespass violation.

Similarly, an ocean kayaker may paddle in clearly navigable open ocean waters to the boundary of a State Park, and then try to enter the State Park boundary area, but not through the official entrance to the Park. In this case, the kayaker may face possible sanctions from Park management for entering the State Park at other than the official park entrance designated by the State.

The issue of non-motorized boating access largely concerns waterways that are supposedly "navigable", and hence open to public use. The courts have usually ruled that rivers which are physically navigable are also "navigable" for purposes of State ownership. On such rivers, the riverbed and banks, up to the ordinary high water marks, are usually declared State land, held in trust for public navigation, fishing, and other non-destructive visits.

Over the years, there have been many Federal and California court cases regarding legal rights water use issues. Seeking case-by-case court solutions to this complex legal problem can be costly and contentious. In recent years, some non-motorized boating groups (such as the American Canoe Association and American Whitewater) have rather focused on improving landowner relations, both before, and during, a non-motorized boating event. The National Organization for Rivers (NORS) River Law Project provides clear summaries of the issues surrounding river law in the United States.¹¹⁵

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