

# Seaplane Environmental Issues

## Summary

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### INTRODUCTION

Seaplanes excel at providing fast, safe, low-impact transportation to remote and sensitive areas. Explorers, researchers, backcountry hikers and backpackers, search and rescue teams, law enforcement agencies, sportsmen, and many other groups use seaplanes to satisfy their transportation needs. As we become more environmentally conscious, the impact of traditional modes of transportation is under increasing scrutiny. This document summarizes what is known about the environmental impact of seaplanes.

### IMPACT STUDIES

Very few environmental impact assessments have been conducted on seaplanes. The U.S. Army Corps of Engineers' environmental appraisal of seaplane operations on the Sacramento District Project Lakes stands as one of the few unbiased reports. Their conclusions:

1. Air Quality: no impact
2. Water Quality: no impact
3. Soil Quality: no impact
4. Wildlife: no impact
5. Fisheries: no impact
6. Hydrology: no impact
7. Noise: similar to that created by a large speedboat

J.J. Frey, President of the EDO Float Corporation, presented testimony for a study of the Kenai River to the effect that floatplanes generate no more than a two to three inch wake, not enough to be a factor in shoreline erosion.

### RELATIVE IMPACT

Seaplanes compare favorably to other forms of mechanized transportation, including boats and automobiles.

Seaplanes have a number of environmental advantages over motorized boats. Seaplanes do not store or discharge oily bilge water or sewage, and are not

treated with toxic anti-fouling paints. Unlike many boats, exhaust from seaplane engines is discharged into the air, well above the water's surface, where it can dissipate without significantly impacting water quality. Aviation fuel does not contain MTBE, a toxic additive found in automotive and marine fuels.. Furthermore, aviation fuel is not mixed with oil, and thus contains a fraction of the oil and oil residue found in two-stroke marine exhaust.

A seaplane's propellers are entirely above the water, and thus do not disturb sediments or marine life. Most seaplanes generate a wake of only two to three inches in amplitude. And although seaplanes generate noise levels comparable to large motorboats, that noise lasts only the 20 to 60 seconds that a seaplane requires to take off and depart the area.

Seaplanes and cars are comparable in direct environmental impact, but seaplanes are distinctly better for the environment when indirect impacts are considered. Whereas seaplanes require only a body of water and suitable beach, dock, or ramp, automobiles require an extensive network of roadways that are expensive to build and maintain, occupy valuable land, and adversely affect water quality, soil quality, and wildlife.

### CONCLUSION

Seaplanes do not significantly impact the environment. Seaplanes compare very favorably to conventional motorized boats in areas of air and water pollution, wakes, and disturbance of plants, wildlife, and sediments. Noise generated by seaplanes is similar in amplitude to that generated by large speedboats, but unlike motorboats, noise from a seaplane is brief and transitory. Seaplanes also compare favorably to automobiles, primarily because seaplanes do not require an intrusive or extensive infrastructure.

There is no factual basis for the restriction of seaplanes for environmental reasons at locations where motorized boats are permitted. Further, seaplanes are acceptable modes of transportation even on many waterways that are inappropriate for use by motorized boats.