

# PASSAGE AND FLOW CONSIDERED ANEW – WILD SALMON RESTORATION VIA HYDRO RELICENSING



**PAUL STANTON KIBEL**

**Professor, Golden Gate University School of Law**

**Water and Natural Resource Counsel, Water and Power Law Group**

**WORLD WATER CONGRESS / HYDRO LAW PANEL**

**Edinburgh, Scotland / May 2015**

**PASSAGE AND FLOW CONSIDERED ANEW –  
WILD SALMON RESTORATION VIA HYDRO RELICENSING**  
**PAUL STANTON KIBEL**



**Articulation of rules and rights that govern how water is utilized *instream* –  
a more recent focus in the field of water law**

**PASSAGE AND FLOW CONSIDERED ANEW –  
WILD SALMON RESTORATION VIA HYDRO RELICENSING**  
**PAUL STANTON KIBEL**



**Habitat Requirements for Pacific Coast Wild Salmon**

- **downstream and upstream passage**
- **cold water temperatures**
- **gravel and woody debris for spawning**

**PASSAGE AND FLOW CONSIDERED ANEW –  
WILD SALMON RESTORATION VIA HYDRO RELICENSING**  
**PAUL STANTON KIBEL**



**Pacific Coast Dams Built in the United States in the 1940-1970 Period**

- **reliance on hatchery salmon programs to offset anticipated losses of wild salmon**

**PASSAGE AND FLOW CONSIDERED ANEW –  
WILD SALMON RESTORATION VIA HYDRO RELICENSING**  
**PAUL STANTON KIBEL**



**Hydro Relicensing under the United States Federal Power Act (FPA)**

- ◦ **Section 10(j) of FPA – mitigate damage to and enhance fish affected by project**
- ◦ **Section 18 of FPA – conditions necessary to ensure effective fish passage**

**PASSAGE AND FLOW CONSIDERED ANEW –  
WILD SALMON RESTORATION VIA HYDRO RELICENSING**  
**PAUL STANTON KIBEL**



**Oroville Hydro Relicensing on the Feather River in California**

- additional releases to maintain cold water temperatures below dam
- gravel and woody debris supplementation below dam

**PASSAGE AND FLOW CONSIDERED ANEW –  
WILD SALMON RESTORATION VIA HYDRO RELICENSING  
PAUL STANTON KIBEL**



**Pelton Hydro Relicensing on the Deschutes River in Oregon**

- “selective water withdrawal” (SWW) facility to improve downstream passage

**PASSAGE AND FLOW CONSIDERED ANEW –  
WILD SALMON RESTORATION VIA HYDRO RELICENSING  
PAUL STANTON KIBEL**



**Low Impact Hydropower Institute (LIHI) Certification for Existing Facilities**

- **healthy river flows**
- **effective fish passage**