

OPTIMIZING RESOURCE ALLOCATION IN AQUATIC LIFE SUPPORT SYSTEMS

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Water is central to the management and care of aquatic animals. Traditional life support system designs often do not address all aspects of water quality management, resulting in excessive resource allocation (water, labor, energy, chemicals) to normalize the aquatic environment. Many husbandry and animal health problems will be negated by a attention to varied and suitable water treatment techniques in the LSS design. Comprehensive and appropriate design and operation addresses both the animals' needs for a stable aquatic habitat and the institutions goals for sustainable operations, low carbon footprint and responsible resource allocation.