C	Harbor Facilities ondition Inspection
	Ву
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#### **Evaluating Your Facility**

- Prepare maintenance plan that addresses the entire facility.
- Establish estimated replacement date for key items in your facility.
- Adjust your replacement dates as necessary based on maintenance plan updates.





- Develop inspection procedures
- Develop checklists
- Perform inspections
- Prioritize work items by importance
- Estimate costs associated for each item
- Develop repair timeline and budget
- Evaluate repair costs to see if replacement is a better option.

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## **Inspection Frequency**

- Perform detailed facility inspections every 5 years.
- Perform cursory walkthrough inspections
  - Annually
  - After significant storms or earthquakes
  - As needed, after accidents or other events



### **Estimate Associated Cost**

- In-house work
- Permitting costs
- Engineering costs
- Bid the work

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## Focus on Inspection Items

- Marina float systems
- Fixed piers



	Ge	ene	ral	Ins	pect	ion	Cł	nec	kli	st
Slip #	Main\ Finger	Deck	Waler Rubstrip	Cleats\ Bullrail	Freeboard	Utilities	Piles	Pile Hoop	Photo #	Comments
A1-3	F	F	Р	G	Р	-	G	F	1,2	Low FB
A3-5	М	F	F	G	F	Р	G	F	3,4	HOSE LEAK
A5-7	F	F	F	Ρ	F	-		-	5,6	MISSING CLEAT
A7-9	М	F	F	G	F	F	G	Р	7,8	WORN ROLLER
									Р	ND

	Uti	lity	7 Ir	ispe	cti	on	Ch	eck	list
Slip #	Power Pedestal	Power Recep	Cable TV	Telephone	Hose Bibb	Fire System	Pump Out	Photo #	Comments
A1	F	Ρ	G	Ρ	-	-	-	1,2	Broken P Receptacle
A2	G	G	G	F	Р	G	-	3,4	Hose Leak
A3	G	G	Р	F	-			5,6	Broken C outlet
A4	Р	G	G	F	F	G	G	7	Cracked Pedestal
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**Float Decks** 



# Float Edges

Concrete edge spalls

• Deck problems





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# **Float Finger Connections**

- Timber walers
- Twist in finger







































### When It Is Time For Replacement

- Evaluate the life expectancy of the different types of construction materials.
- Evaluate potential maintenance issues with different types of construction.
- Choose the type of construction with the longest life expectancy and least maintenance cost that your budget will allow.

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### References

Marinas and Small Craft Harbors, Second Edition by Bruce O. Tobiasson, P.E. Ronald C. Kollmeyer, Ph.D.

A Guide to Maintenance and Operation of Small Craft Harbors by Peratrovich, Nottingham & Drage

