

A photograph of a lake with houses and trees in the background, overlaid with text. The image shows a calm body of water in the foreground, with a line of trees and several houses visible on the opposite shore. The sky is clear and blue. The text is overlaid in the center of the image.

# The Dock Ordinance

Where does the dock end?



A scenic view of a lake with several wooden docks and a small boat in the foreground. The docks are covered with various items, including boats and equipment. In the background, there are lush green trees and some houses. The water is calm, and the sky is clear.

# The Dock Ordinance

What is our expectation of use?

# The Problem

- ▶ Most new docks are permitted using a variance process requesting a length longer than allowed by ordinance.
- ▶ The reason for the request is usually based on reaching water deep enough to operate a boat lift.
- ▶ Our job is to determine the source of the problem and repair it.

# Why do we own lakefront?

- ▶ The view
- ▶ Observe nature
- ▶ Swim in the lake
- ▶ Sun on the beach
- ▶ Use boats
- ▶ Status
- ▶ Fishing

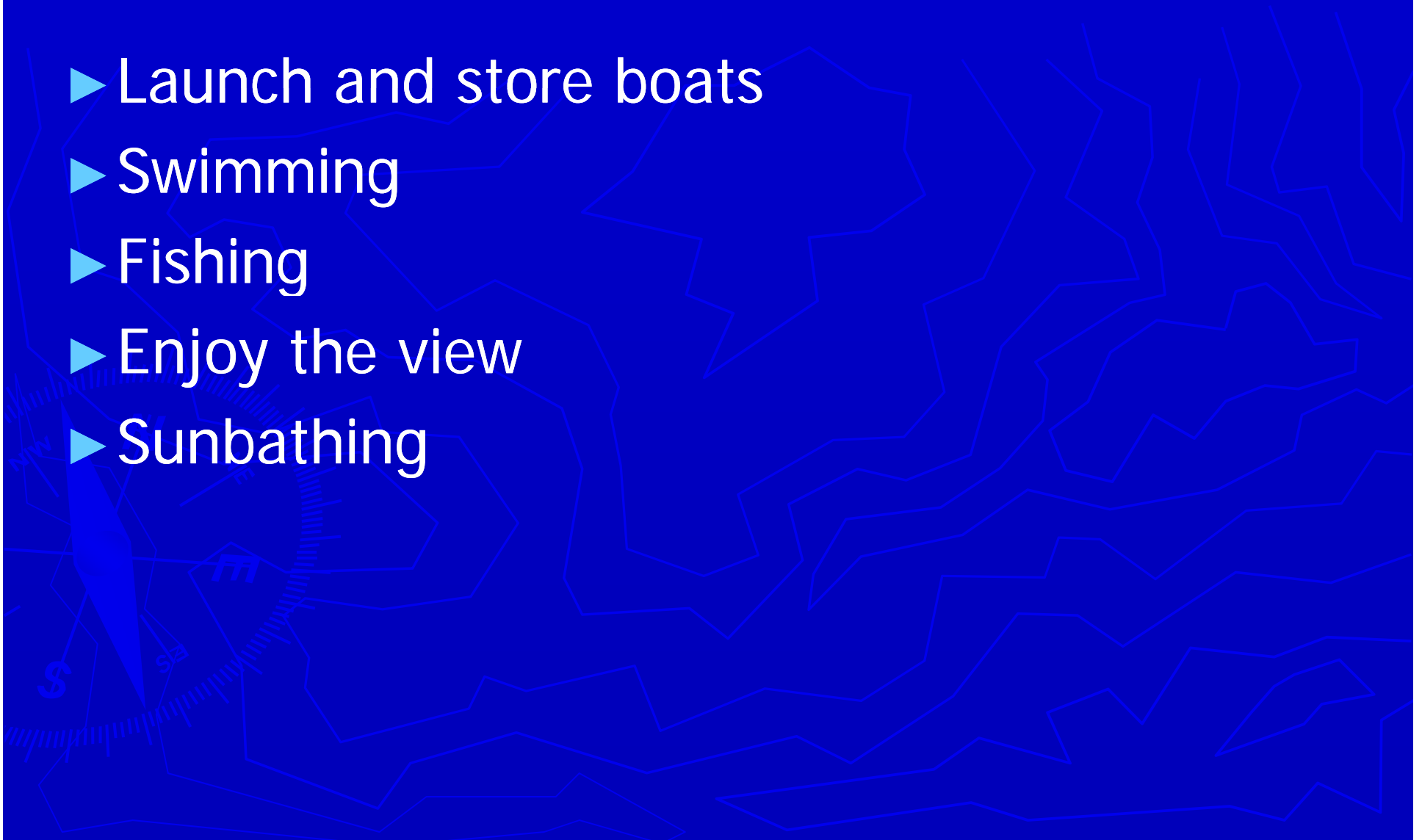


# Lakefront Premiums

- ▶ Increased land cost
- ▶ Increased taxes (2-3X)
- ▶ Increased yard (beach) maintenance
  - Permits required for partial clearing
- ▶ Increased environmental responsibility
  - Individual shore damage effects the whole lake
- ▶ Dock construction and maintenance cost

# Why Do We Have Docks?

- ▶ Launch and store boats
- ▶ Swimming
- ▶ Fishing
- ▶ Enjoy the view
- ▶ Sunbathing



# What is Our Expectation of Use?

- ▶ All the time?
- ▶ Most of the time?
- ▶ Half the time?
- ▶ Sometimes?
- ▶ Rarely?
- ▶ Never?

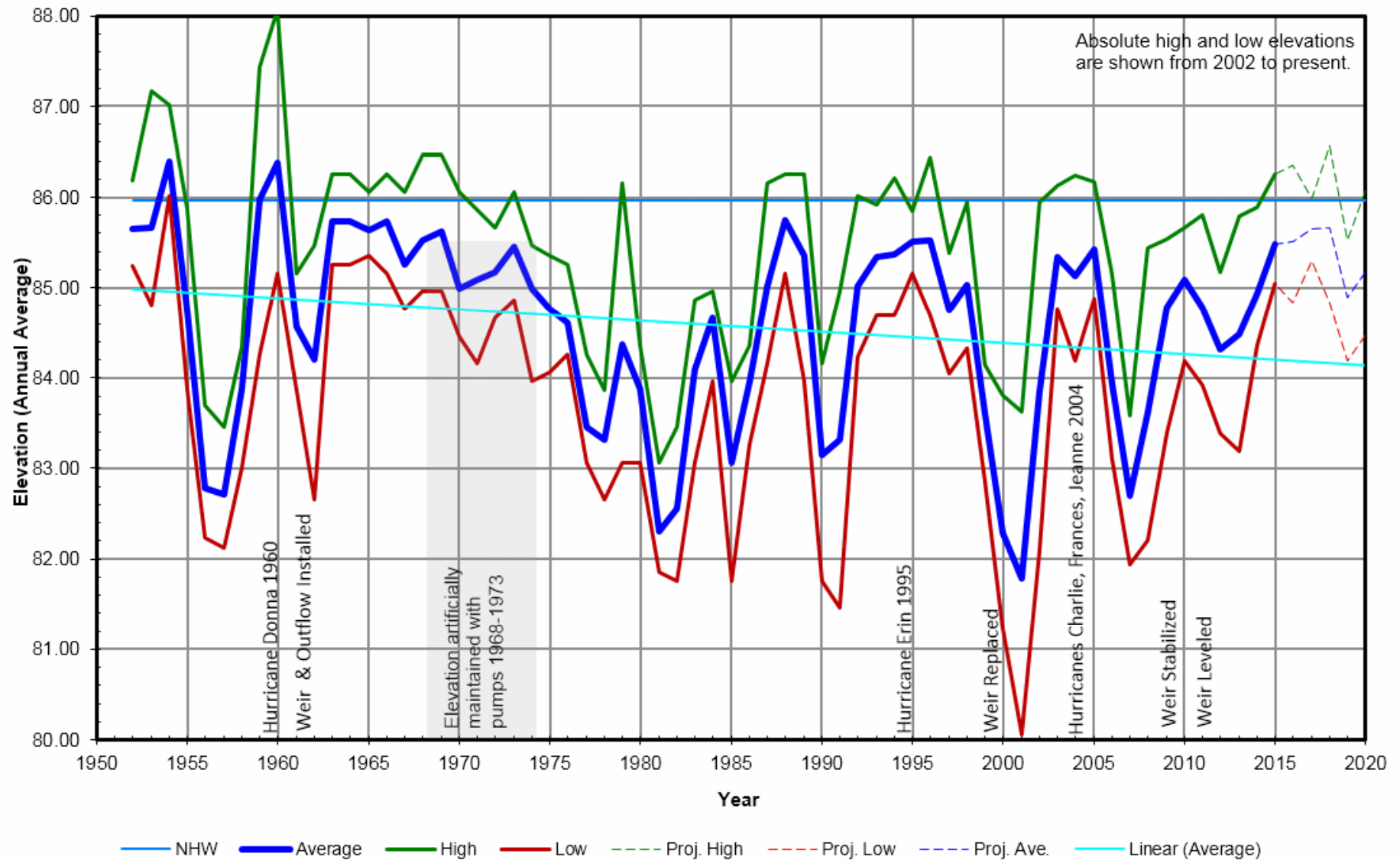
# How Much Does the Lake Change?

- ▶ Since 2000 the lake level has varied as much as 6.1 feet.
- ▶ The lowest level recorded is 80.11 in 2001.
- ▶ The highest recent level was 86.16 in 2004.
  - Notice 6.1' change in only 3 years
- ▶ The highest level recorded is 88.0 in 1960
  - Hurricane Donna - no outfall at that time.
- ▶ Annual variation average 1.7', max. 3.8'



## Lake Conway Historic Average Annual Elevations (1994 Extrapolation)

Data compiled as a public service by TEC Engineering, Inc. 407-859-8737  
NAVD 88



# What Causes Levels to Change?

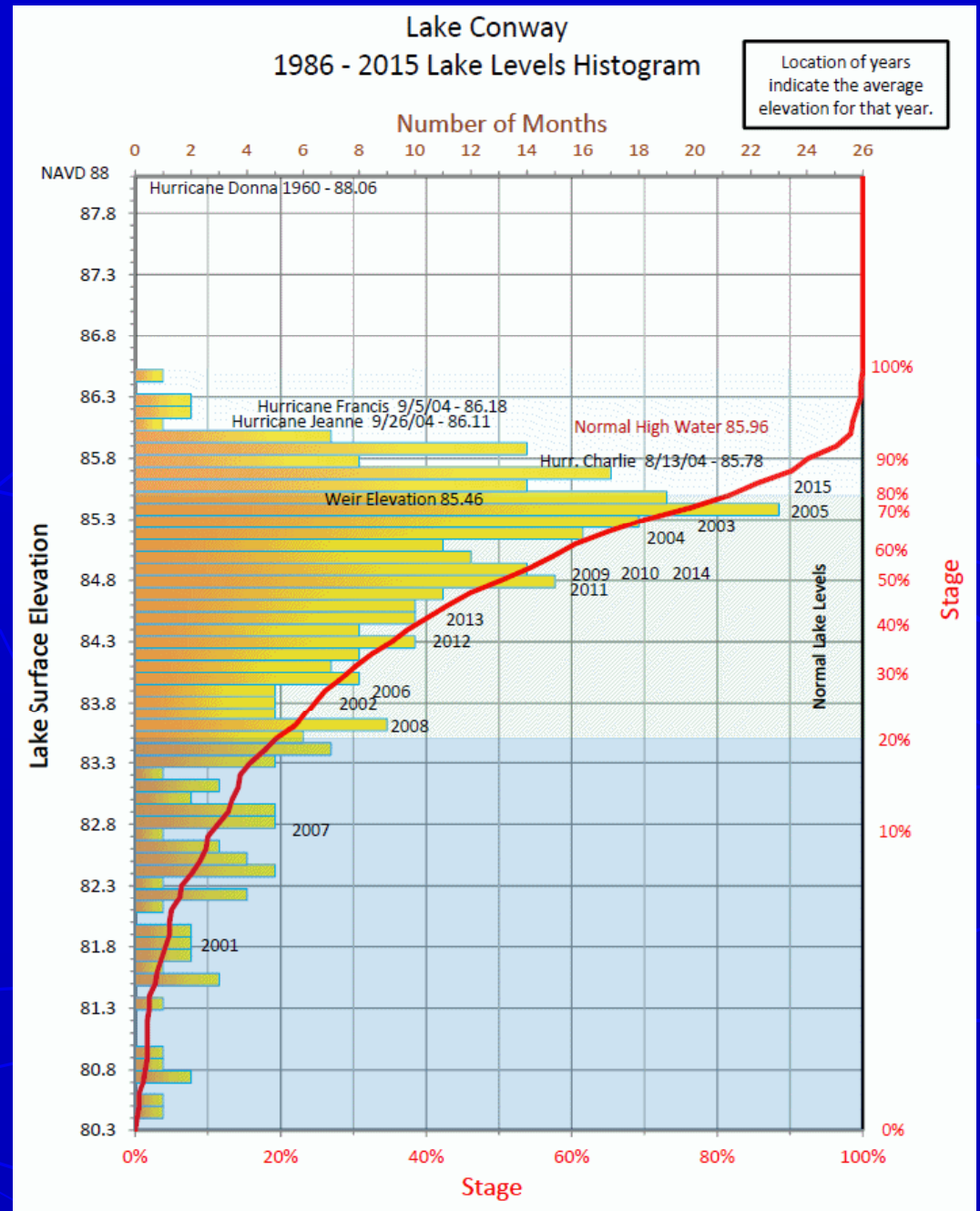
- ▶ Rainfall
- ▶ Evaporation
  - $\frac{1}{4}$ " per day in Summer,  $\frac{1}{8}$ " per day Winter
- ▶ Groundwater
- ▶ Let's face it, it is a natural body of water with a controlled emergency overflow.
  - This only effects the short term high water elevations

# What is "Normal"?

- ▶ The average lake level for the 1960s was 85.5.
- ▶ The average lake level for the 2000s was 83.9.
  - A decrease of 1.6'
- ▶ The wet season level is typically a foot higher than the dry season level.
- ▶ The trend is down and it is our fault.
- ▶ Our task is to define normal for the future.

# Stage

- ▶ The lake stage is the percent of time the lake level was below an elevation in a 30 year period.
- ▶ It can be used to predict the probability of any particular level.







2001  
Elev. 80.7  
Stage 1%





2007  
Elev. 82.7  
Stage 10%





2008  
Elev. 82.8  
Stage 11%





2009  
Elev. 83.8  
Stage 25%





2013  
Elev. 84.1  
Stage 30%





2004  
Elev. 84.7  
Stage 46%