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### Ecosystem service valuation

### **Current studies frequently are:**

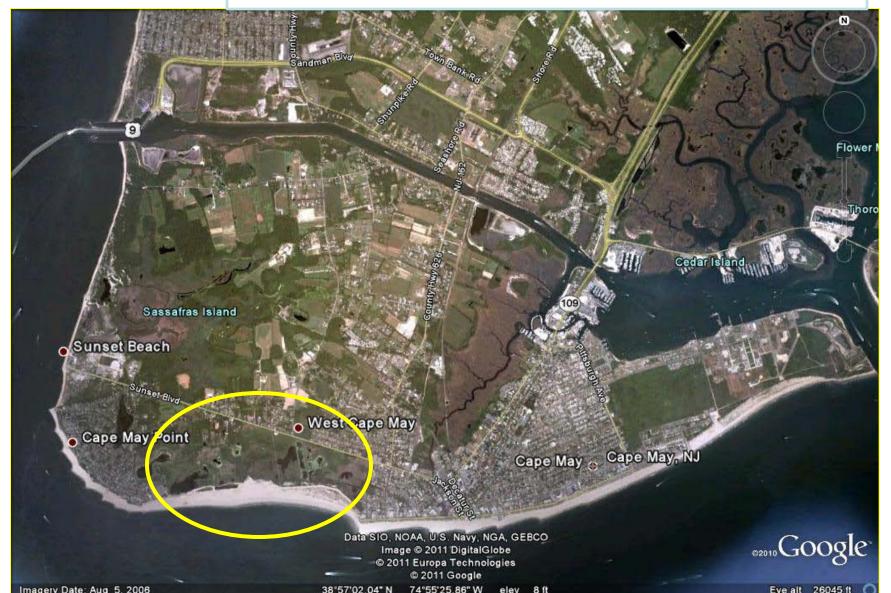
- Aggregated to watershed or state level
- Often for open space, not restoration

#### A CASE STUDY

Ecological restoration in Cape May County, New Jersey



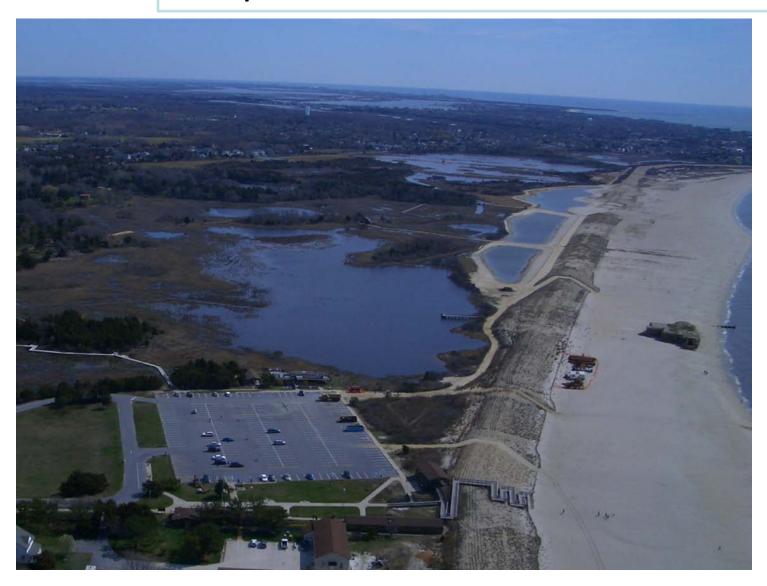
## Lower Cape May Meadows ecosystem restoration







## Lower Cape May Meadows project completed in 2007





### Economic analysis of Lower Cape May Meadows

- 1) Which benefits to quantify?
- 2) Which methods to use?



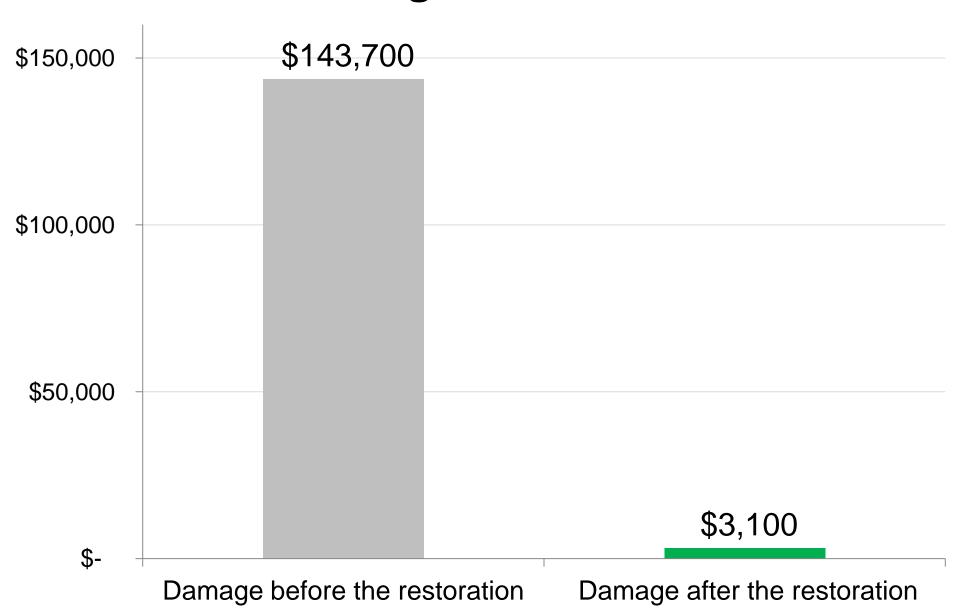
### Economic analysis of Lower Cape May Meadows

#### Mixed methods analysis and data:

1) Flood reduction benefits

2) Ecotourism benefits

# Average damage (in \$) per storm with storm surge above 2.5 feet





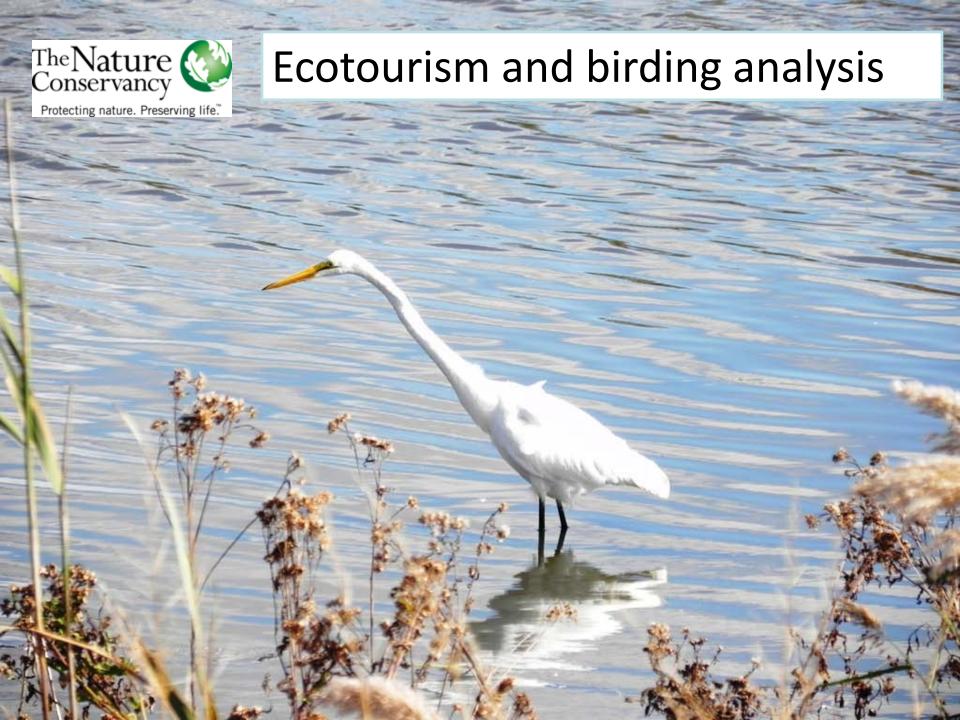
### **Superstorm Sandy**

	Damage (\$)	Storm surge (ft)	3-day Precipitation (inches)
Nor'easter of January 1992	\$727,000	3.22	0.6
Superstorm Sandy	\$6,290	3.24	10



### Total flood reduction benefits







### Access at Cape May Meadows

#### **BEFORE**



#### **AFTER**





## Economic impact for Cape May County





## Economic impact for Cape May County





## Economic impact for Cape May County





# LESSONS LEARNED AND OPPORTUNITIES



#### Lessons learned

- 1. Proof of concept
- 2. Value to municipalities and other partners
- 3. Multiple benefits lead to multiple funding sources



# Economic metrics for restoration projects

- 1. Incorporate economic metrics into existing monitoring plans
- 2. Engage stakeholders early in the process



#### Thank you!

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