

## ARTICLE 23: COMMUNITY RESILIENCE GOALS

Ms. Gill-Pazaris moves  
that the Town adopt the resolution  
as printed in the handout  
applicable to  
this article.

## Article 23: Community Resilience Goals

### WHAT IS ARTICLE 23 ASKING FOR?

1. **Recognize climate resilience and identification of cost effective methods to build resilience as top-level priorities**
2. **Form a multidisciplinary committee to explore ways to build town resilience and protect us from extreme weather events**

## **Article 23: Community Resilience Goals**

### **Support for Building Resilience Now**

#### **USDA Natural Resource Conservation Service:**

- **can not prevent natural disasters**
- **can prepare for and reduce impacts if plan now**

#### **MAGIC Climate Resilience Plan:**

##### **Communities must:**

- **reduce greenhouse gas emissions**
- **simultaneously build resilience**

## Article 23: Community Resilience Goals

### Resilience vs Sustainability

**Sustainability:** meeting the needs of people now without jeopardizing the ability of future generations to meet their needs.

**Resilience:** capacity to respond to a disturbance by resisting damage and recovering quickly.

## **Article 23: Community Resilience Goals**

### **Why Resilience Nature Based Solutions?**

- **Nature-based solutions that restore health & function of Concord's natural systems will protect us, our homes, & businesses, our infrastructure & save money**
- **Healthy, functioning natural systems will help us 'weather' extreme storms & drought**
- **Act now while natural systems still abundant in Concord**

## Article 23: Community Resilience Goals

### Examples of Resilience Goals

- Replenished Groundwater
- Water Retained on the Landscape
- Restored & Maintained Ecosystems & Ecosystem Services
- Improved Soil Health

## ARTICLE 23 COMMUNITY RESILIENCE GOALS

### **Natural Systems Reduce Climate Impacts**



### Free Services: Trees

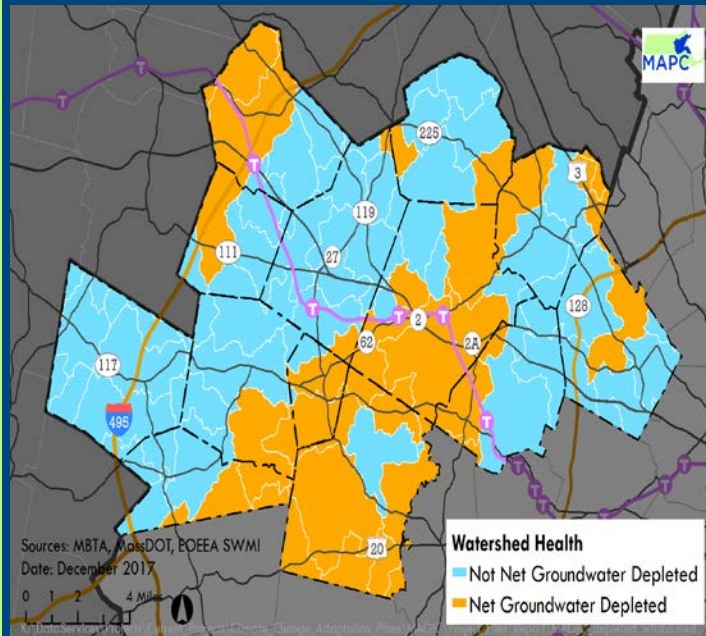
- Reduce temperatures
- Absorb flood water
- Reduce pollutants
- Purify air
- Barrier against wind
- Carbon storage

# ARTICLE 23: COMMUNITY RESILIENCE GOALS



## Article 23: Community Resilience Goals

### \*MAGIC Vulnerability Assessment



Area: drinking water infrastructure highly vulnerable

Concord: one of 3 towns in area with groundwater depletion faster than recharge

\*From the Magic Climate Resilience Plan 2017

## Article 23: Community Resilience Goals



Water in, on, and above the Earth

- Liquid fresh water
- Freshwater lakes and rivers

Howard Perlman, USGS  
Jack Cook, Adam Nieman  
Data: Igor Shiklomanov, 1993

## Article 23: Community Resilience Goals

### **\*Magic Vulnerability Assessment**

- Concord: most public infrastructures in flood zone
- Concord: 1 of 2 towns with most private parcels in flood zone

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## Vote YES on Article 23: Yes to Nature-Based Solutions



**Extreme Wind Storms**



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# Article 23 Extra slides

## **Article # 23: Community Resilience Goals**

### **Impacts of Extreme Weather Events**

- Ecological Systems – decreased drinking water quality / quantity, flooding, habitat loss**
- Agriculture – decrease / change in food production**
- Economy & Built Environment – property & infrastructure damage, lost wages, business closure**
- Public Health - respiratory, cardiovascular, & insect-borne disease, heat stroke, mold**

## Article # 23: Community Resilience Goals

- **Total average value of ecosystem services: Ave. \$US 33 Trillion / year**

R. Costanza *et al.*, "The Value of the World's Ecosystem Services and Natural Capital," *Nature*, Vol. 387 (1997), p. 256, Table 2.

- **Global loss of ecosystem services due to land use change : \$US 4.3–20.2 Trillion / year**

[Global Environmental Change](#), Elsevier  
[Volume 26](#), May 2014, Pages 152-158

## Article # 23: Community Resilience Goals

The MAGIC Resilience plan:

*The Massachusetts Wetlands Protection Act (WPA) and the Rivers Protection Act “do not protect all aspects of water resources and at this time do not account for changes that may accompany climate change”.*

Magic Climate Resilience Plan, 2017

## Article # 23: Community Resilience Goals

Vote YES: Plan now; avoid this...

