



## **GLYPHOSATE-BASED PRODUCTS AND ALTERNATIVE METHODS FOR WEED CONTROL**

### **Public Works Department**

#### **Land Use, Sustainability and Resilience Committee**

January 8, 2023

RiversideCA.gov

1

## **BACKGROUND**

- May 8, 2023 – Committee received update on the use of glyphosate
  - Requested clarified locations where glyphosate-based products are used by Public Works
  - Requested weed abatement alternatives



2

RiversideCA.gov

2

## BEST PRACTICES

- Public Works applies glyphosate-based products using best practices
  - By hand using a backpack sprayer or hose connected to slow-moving vehicle
  - Large areas (like medians) treated using a truck-mounted sprayer
  - Notify daycares and schools prior to spraying and schedule work when school is not in session
  - No spraying when winds exceed 5 MPH
  - 1% solution used
    - 1 gallon of Roundup mixed into 100 gallons of water
  - Dye added to make application visible



3

RiversideCA.gov

3

## WEED ABATEMENT LOCATIONS

- Medians and Parkways
  - 400 acres
  - Sprayed using a truck-mounted sprayer or by worker on foot using a backpack sprayer



4

RiversideCA.gov

4

## WEED ABATEMENT LOCATIONS

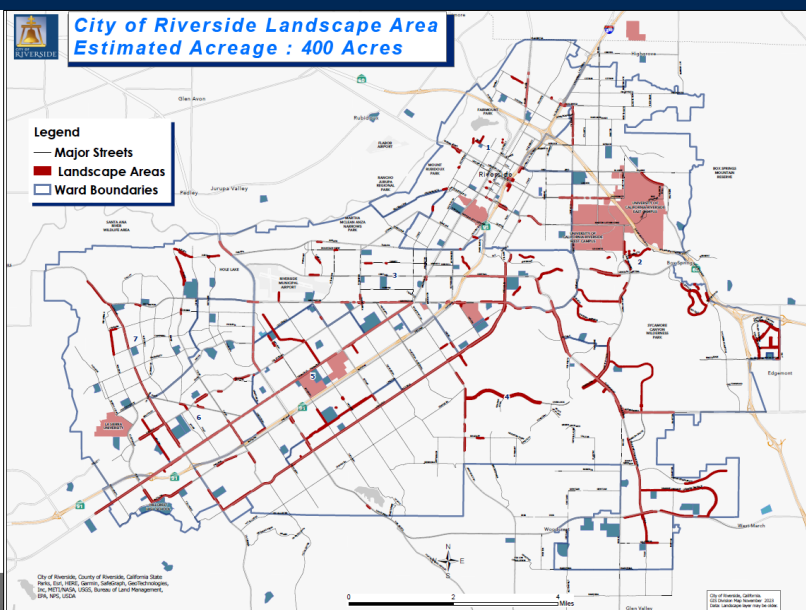
- Victoria Avenue - 60 acres
  - Myrtle Avenue to La Sierra Avenue
  - Glyphosate-based products used for general weed control
  - Non-glyphosate product used around Ragged Robin Roses - does not harm plant root system
  - Volunteer groups pull weeds and work in garden areas along the Avenue



RiversideCA.gov

5

## WEED ABATEMENT LOCATIONS



RiversideCA.gov

6

6

## ALTERNATIVE WEED CONTROL METHODS

### 1. Manual removal

- Weeds need to be pulled/cut about every 2 weeks
- Public Works WRP crews perform only manual weed abatement (shovels and string trimmers)
  - Crews work in large areas along roads such as Mission Inn Ave near Redwood and along Central Ave near the 215 Fwy
- 10-12 full-time personnel would be required for Victoria Avenue only



7



RiversideCA.gov

7

## ALTERNATIVE WEED CONTROL METHODS

### 2. Thermal weed control

- Flame weeding can be effective on weeds grown in expansion joints/cracks
  - Should not be used where mulch, plants, or structures are present
- Steam or hot foam
  - Requires special equipment and training
  - Can cause severe burns
  - Foaming agent may take up to 36 hours to dissipate



RiversideCA.gov

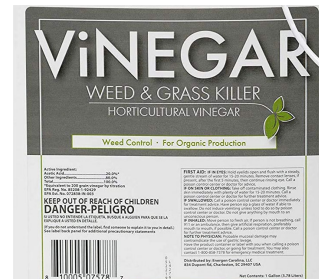


8

## ALTERNATIVE WEED CONTROL METHODS

### 3. Alternative herbicides

- Acid- or salt-based
  - More applications required
  - Lower dilution rates (more product per gallon of water)
  - Costly – Public Works costs during moratorium increased 400%
  - Organic herbicides can be toxic to applicator
    - Household vinegar = 5% acetic acid
    - Horticultural vinegar = 10-20% acetic acid
      - » Concentrations over 11% can cause burns upon skin contact



9

RiversideCA.gov

9

## ALTERNATIVE WEED CONTROL METHODS

### 4. Hardscape

- Replace landscaped areas with pavers, concrete, DG, river rock, etc.
- Spray irrigation needs to be converted to drip or bubbler
- Plants and soil removed



10



RiversideCA.gov

10

## STRATEGIC PLAN ALIGNMENT



### Strategic Priority 2 – Community Well-Being

Goal 2.3: Strengthen neighborhood identities and improve community health and the physical environment through amenities and programs that foster an increased sense of community and enhanced feelings of pride and belonging citywide.

### Cross-Cutting Threads



Community Trust



Fiscal Responsibility



Sustainability & Resiliency



Equity



Innovation



11

RiversideCA.gov

11

## RECOMMENDATION

That the Land Use, Sustainability, and Resilience Committee receive and file an update from the Public Works Department regarding the use of glyphosate.



12

RiversideCA.gov

12