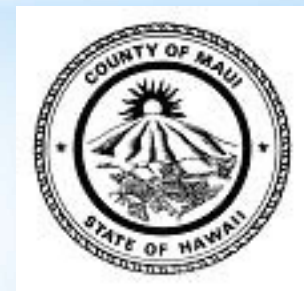
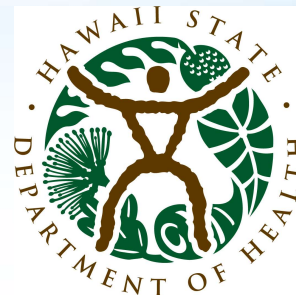
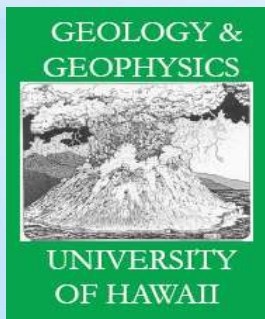


Maui County Department of Water Supply

Wellhead Protection Overlay District

Housing and Land Use Committee

November 15, 2023



What is the Wellhead Protection Program?

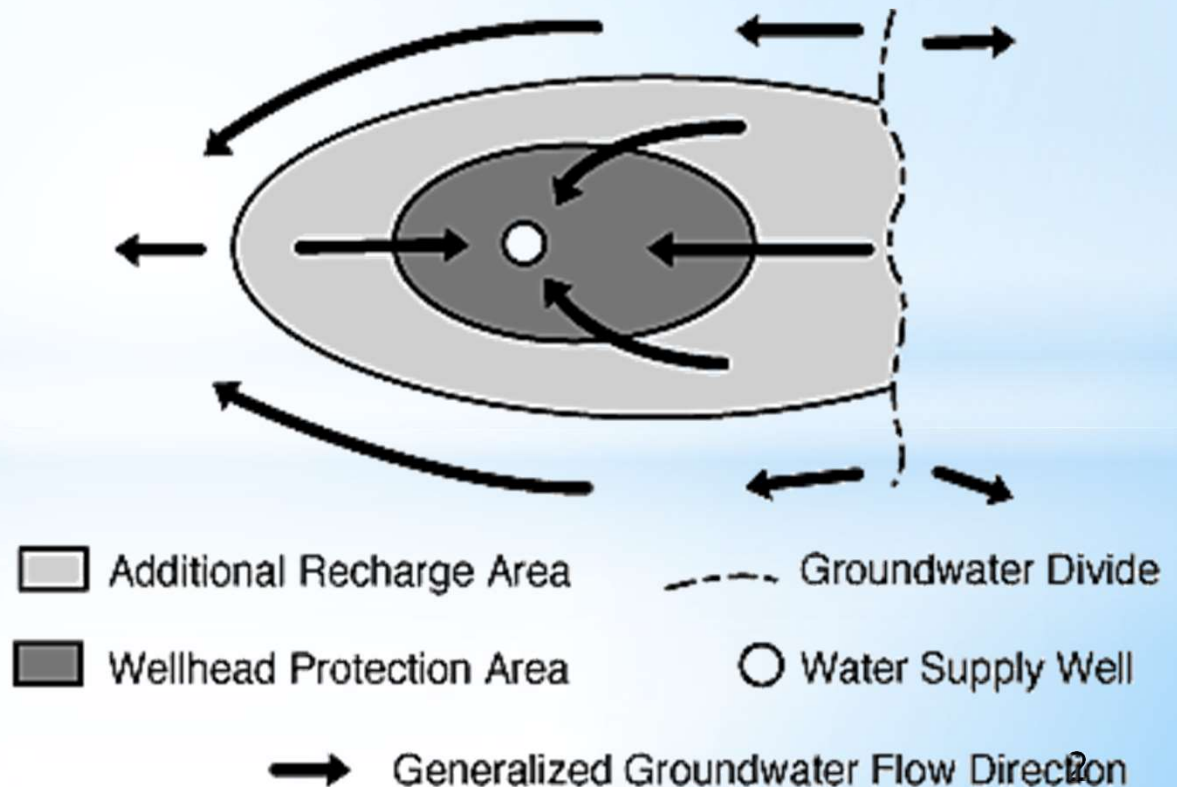
Protect the County's potable wells from contamination and mitigate the need for expensive treatment

Common sources of contamination:

- Leaks & spills from chemical storage
- Industrial processes
- Pesticide applications

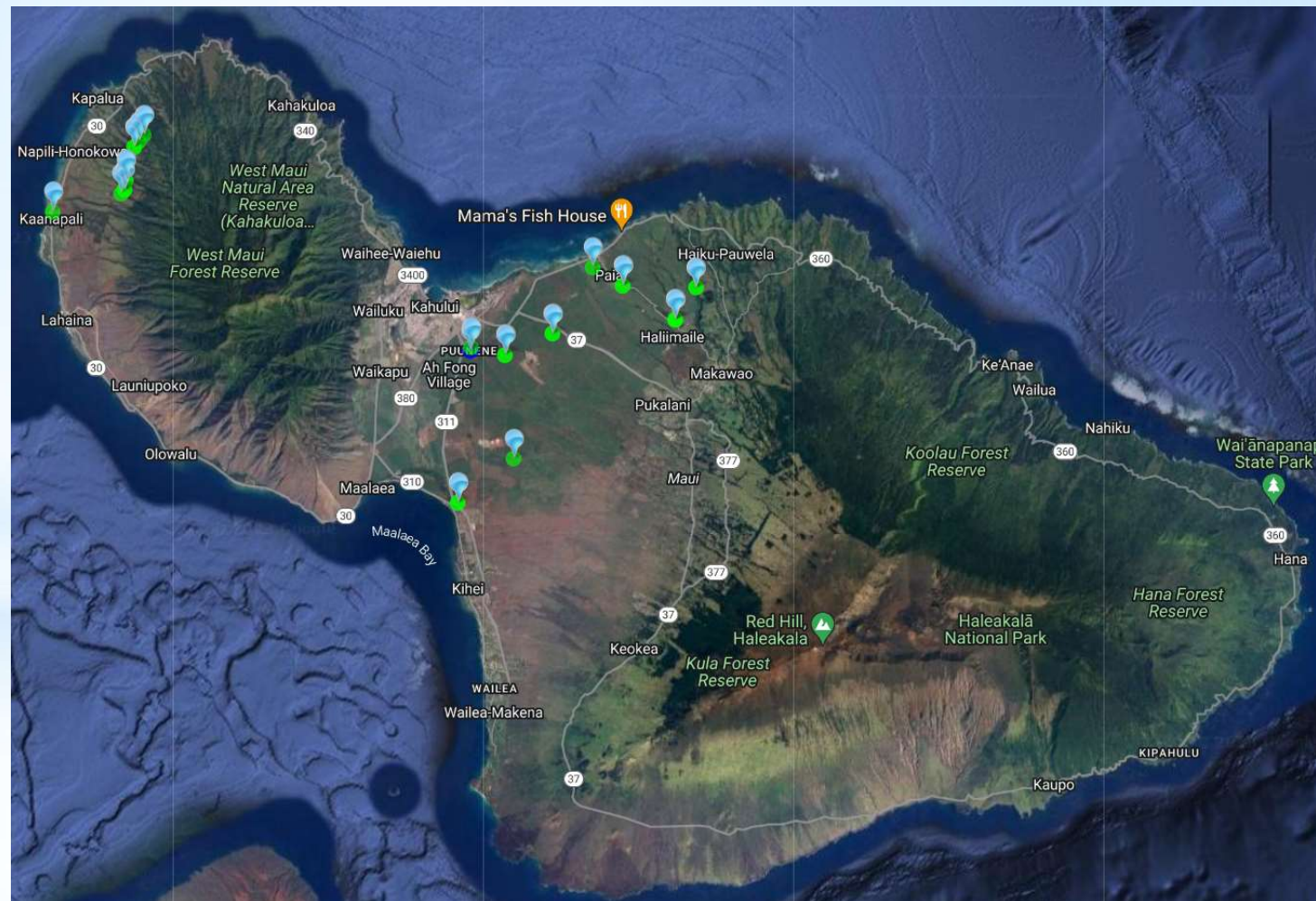
Wellhead Protection Area:

The surface and subsurface area surrounding a well, through which contaminants are reasonably likely to reach the well



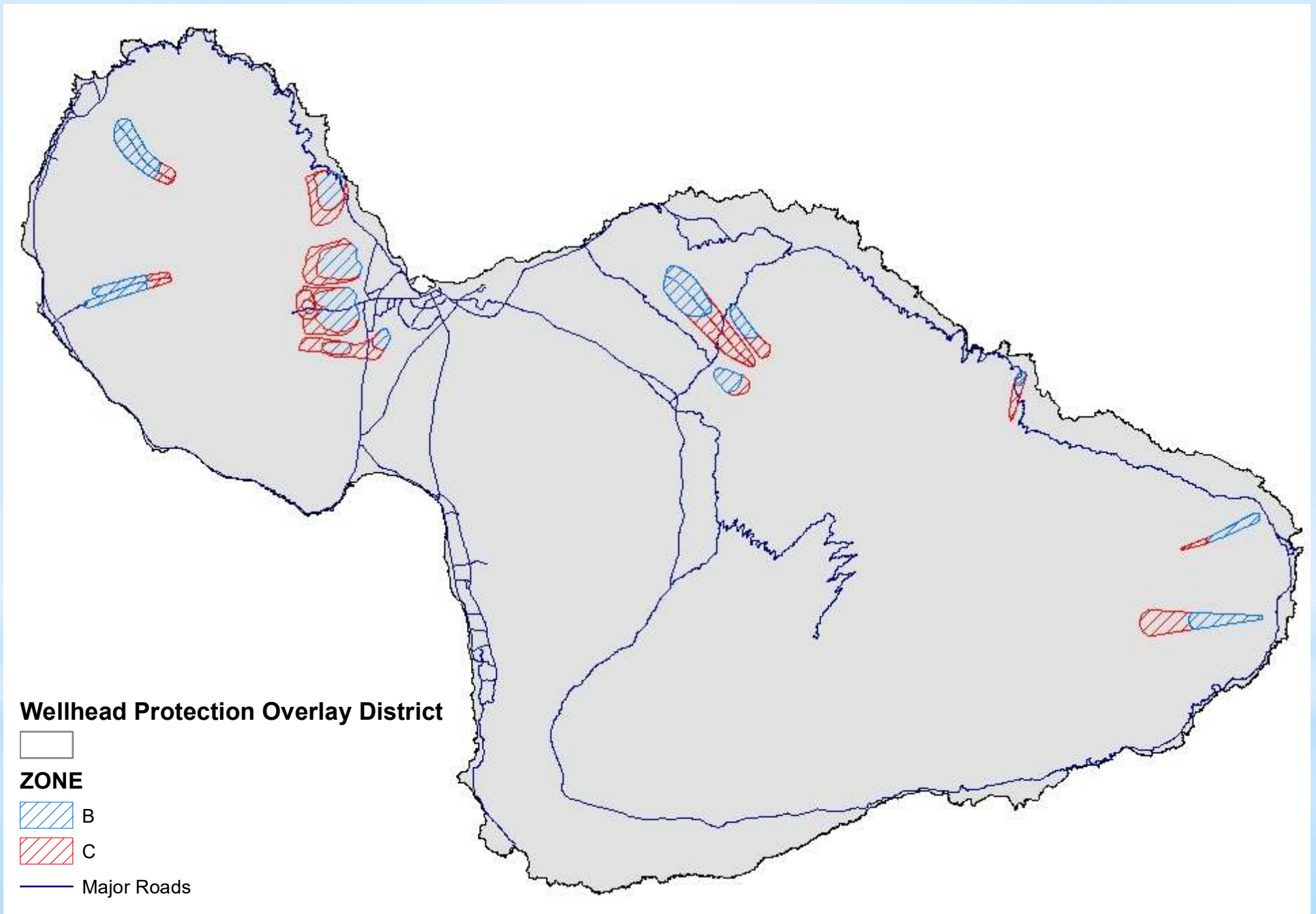
Why Wellhead Protection?

- 70% of Maui's drinking water supply is groundwater
- Years between contaminating event and detection
- Aquifers ranked as vulnerable to contamination
- Gaps in regulations put our drinking water wells at risk

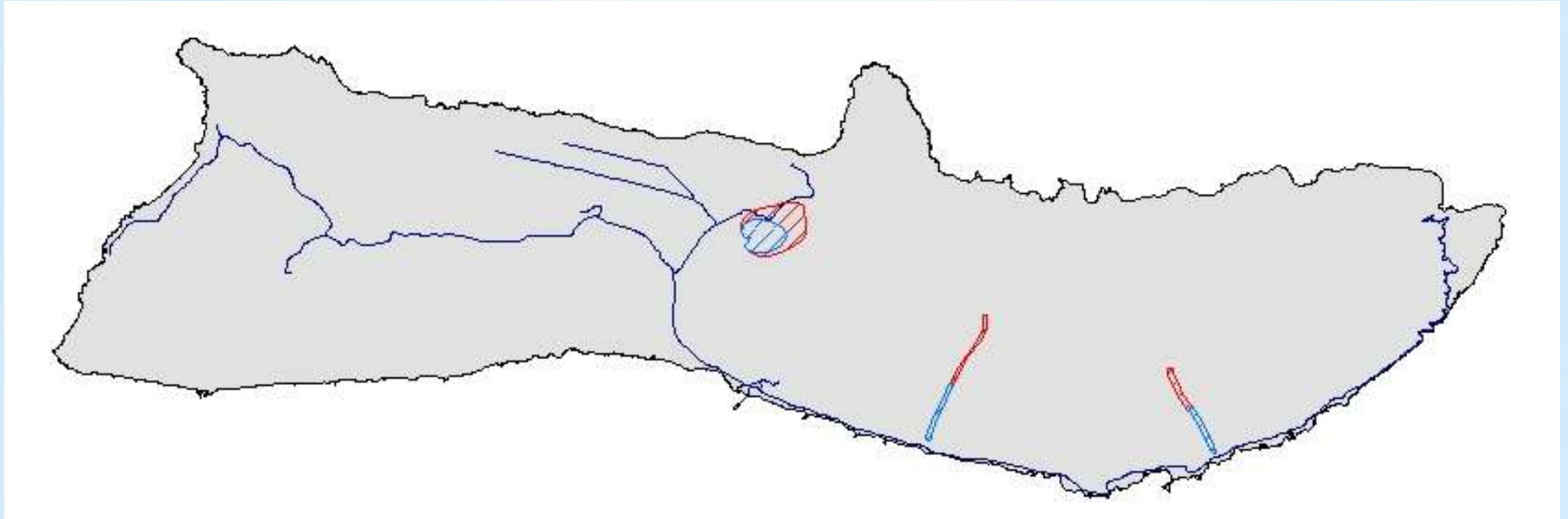


Groundwater Contamination on
the Island of Maui
State of Hawaii Department of
Health, 2022

Wellhead Protection Overlay: Maui



Wellhead Protection Overlay: Molokai



Wellhead Protection Overlay District



ZONE



B



C

— Major Roads

Wellhead Protection Overlay District

- Zoning - restrict new high risk uses
- Existing non conforming uses are grandfathered in
- Wellhead protection permit with best management practices
- Permit administered by the Department of Water Supply
- No impact on residential development in sewerred areas (4 lots or more: Design Guidelines)
- <1% land in overlay district is zoned Light Industrial

PROHIBITED HIGH RISK USES:

- Commercial electrical/electronic manufacturing facilities
- Commercial chemical processing/ storage facilities
- Mortuaries/graveyards
- Golf courses
- Commercial metal plating/finishing/fabricating facilities
- Plastics/synthetic production facilities
- Commercial junk/scrap/salvage yards
- Mines
- Landfills
- Injection wells on non residential properties
- Irrigation with R2/R3 reclaimed water
- Sewage sludge land applications
- Commercial slaughterhouses
- Wastewater percolation ponds

Wellhead Protection Overlay District

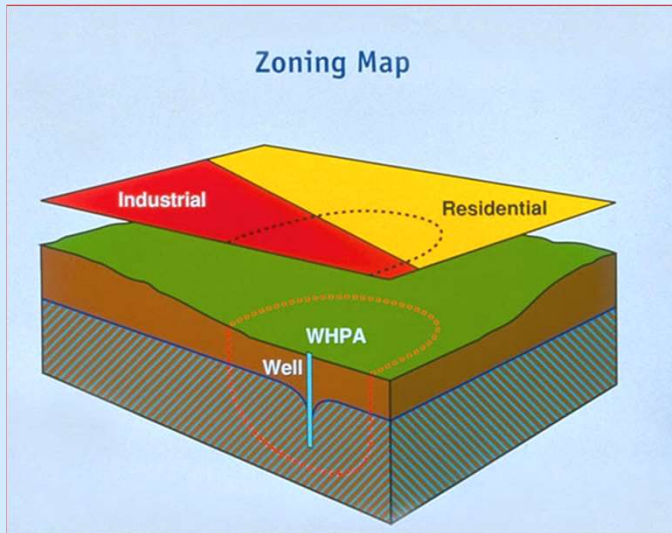
WELLHEAD PROTECTION PERMIT REQUIRES BEST MANAGEMENT PRACTICES

- Commercial automobile body/repair shops
- Car washes
- Cement/concrete plants
- Petroleum/mixed-biofuel fueling stations
- Fleet/trucking/bus terminals
- Dry cleaners
- Use of pesticides determined to be of groundwater concerns
- Commercial machine shops
- Commercial wood preserving/treatment facilities
- Animal feeding operations
- Commercial equipment maintenance/fueling areas
- Hospitals
- Parking lots with > 20 parking spaces
- Waste transfer/recycling stations
- Collection/handling/manufacture/use/storage/transfer/disposal of > 55 gallons petroleum or >10 gallons regulated substances
- Subdivisions that create 4 or more developable lots



Impervious surface with a *secondary containment*

Comprehensive Wellhead Protection Strategy



Wellhead Protection Overlay Zoning: Best Management Practices
Restrict new high risk uses in wellhead protection areas
Public education

Well siting

- *Assessment preceding site selection*
- *Preference to sites of low vulnerability*

HLU Committee

From: Eva Blumenstein <Eva.Blumenstein@co.maui.hi.us>
Sent: Tuesday, November 14, 2023 2:05 PM
To: HLU Committee
Cc: Ana L. Lillis
Subject: HLU-10 Powerpoint presentation
Attachments: WPOD HLU 111523.ppt

Aloha Chair Kama,

Please find attached a brief powerpoint on the 11/15/23 HLU-10 item "Wellhead Protection Overlay District".

Mahalo,

Eva

=====
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