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GIS205

Final Project

CPW Parks Noxious Weeds Treatment Tracking

Audience: CPW State Park Managers, CPW State Park Resources Technicians, noxious weed management contractors engaged by the parks, CPW Natural Resource Stewardship office staff

Audience Size: 126-200

Application Needs:

1. Easily locate park of interest - search
2. View existing invasive plant treatment data
   1. Easily distinguish different treatment types at a glance – symbology
   2. View details of treatment record – inspect attributes via popup
3. Inspect context of treatment
   1. Spatial context - vegetative community, terrain, water bodies etc. via different background imagery
   2. Infrastructure/usage context - surrounding park public use facilities, roads, and trails
   3. Map set context – ½ mile index grid that correspond to larger scale/small extent maps
4. Create/edit/delete invasive plant treatment polygon features and attributes – via editor
   1. Create new features and attributes
   2. Edit vertices
   3. Edit attributes

Uses Case 1 - Park Side:

This web mapping application will provide the CPW State Park staff and third parties engaged by the Park in invasive plant management with the following benefits:

Park managers, technicians, and contractors will be able to:

1. View weed treatment area polygons and information about
   1. Park Name
   2. Year: of application
   3. Month: of application
   4. Day: of application
   5. Applicator Name
   6. Contractor
   7. Contractor
   8. Contractor Email
   9. Contractor Phone
   10. Treatment Method
   11. Target Species
   12. Application Pattern
   13. Equipment Used
   14. Primary Herbicide Chemical
   15. Primary Herbicide Brand Name
   16. Primary Herbicide Chemical Oz/Acre
   17. Secondary Herbicide Chemical
   18. Secondary Herbicide Brand Name
   19. Secondary Herbicide Chemical Oz Per Acre
   20. EPA Reg Number
   21. Air Temperature
   22. Wind Speed
   23. Comments
2. Plan future invasive plant management activities to avoid spatial and temporal overlap for legal/herbicide label compliance and efficient use of materials and time.
3. Determine areas where signage should be posted to inform public notification and for interpretation
4. Monitor treated populations for efficacy
5. Investigate potential problems caused by invasive treatment activities.
6. Draw new weed treatment area polygons and input attribute information which will update a web service hosted by the CPW Resource Stewardship office. This will allow for use of record data via a map that does not have to be maintained by park staff.
   1. Park Name
   2. Year: of application
   3. Month: of application
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   17. Secondary Herbicide Chemical
   18. Secondary Herbicide Brand Name
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   20. EPA Reg Number
   21. Air Temperature
   22. Wind Speed
   23. Comments

Uses Case 2 – Resource Stewardship Side:

This web mapping application will provide the CPW Resource stewardship office with the following benefits:

1. The CPW Resource Stewardship office which will host the web map and data via ArcGIS Online wants to harvest information regarding noxious weed treatment activities at each of the 42 state parks managed by CPW.
2. This will digitize and centralize noxious weed management data which is legally required to be recorded and is currently maintained as paper records at the individual parks.
3. This will allow CORA requests for weed treatment data to be easily handled by Resource Stewardship going forward.
4. Legacy records will need to either be entered into the web map over time or continue to be maintained by the parks.