
Florida Department of Health

Public Health Hazards Vulnerability Assessment Application

Website Users Manual

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THIS APPLICATION IS DEVELOPED WITH ARCGIS VIEWER FOR FLEX 2.

Introduction

This purpose of this tool is to assist environmental and public health planners identify and systematically document PH vulnerability characteristics associated with the hazard and its phases of the event.

Users can view information about the following: FDOH Environmental Health programs; FDEP public water systems, EPA National Priority List, Brownfield areas 2007, CDC vulnerability index, FEMA flood zones, FDEM surge zones and FDEM critical facilities. The application will allow users to view, identify, analyze and report detailed information from various sources. The application also provides a buffer tool defined by county, city or by point, line and polygon.

Benefits

- One centralized data source for public health hazard and vulnerability analyses
- Florida specific data directly from FDOH, FDEP, FDEM and CDC
- Exportable report of facilities queried in buffer
- Printable map of user defined analysis

CDC - The Value of Public Health Hazard Vulnerability Mapping

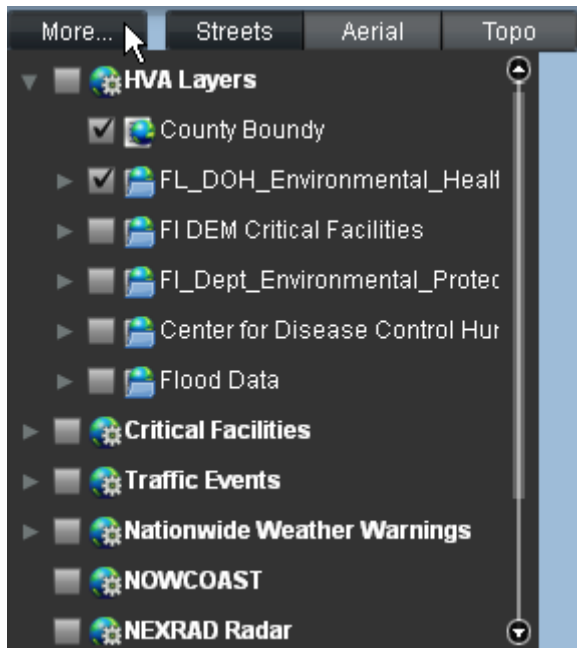
Public Health Vulnerability Mapping (PH-HVM) can be used in all phases of disaster risk reduction. It has an obvious and practical application as a tool that can be used to predict, prevent, mitigate, respond to and recover from both natural and technological disaster hazards.

PH-HVMs can be used in advance of disasters to identify neighborhoods at high risk and to mobilize neighborhood-level self-help action groups along the same lines as the neighborhood crime watch program. The same tool can be used to identify high risk areas where structural mitigative measures can be applied to lessen the likelihood of population exposure to the hazard. PH-HVMs can also be used by planners to identify special needs populations and to develop the appropriate contingencies for emergency response activities. PH-HVMs can also be used by the public health and medical communities to identify and prioritize critical live-saving interventions during the emergency response phase or to identify special populations that will likely require additional services be made locally available during the post-disaster recovery phase. PH-HVMs will allow emergency management and public health officials to manage the public health consequences of disaster with a higher degree of specificity, cost-efficiency and overall effectiveness. Current technologies are now in place at CDC that could make PH-HVMs readily available to every community in the nation.

MapService Contents

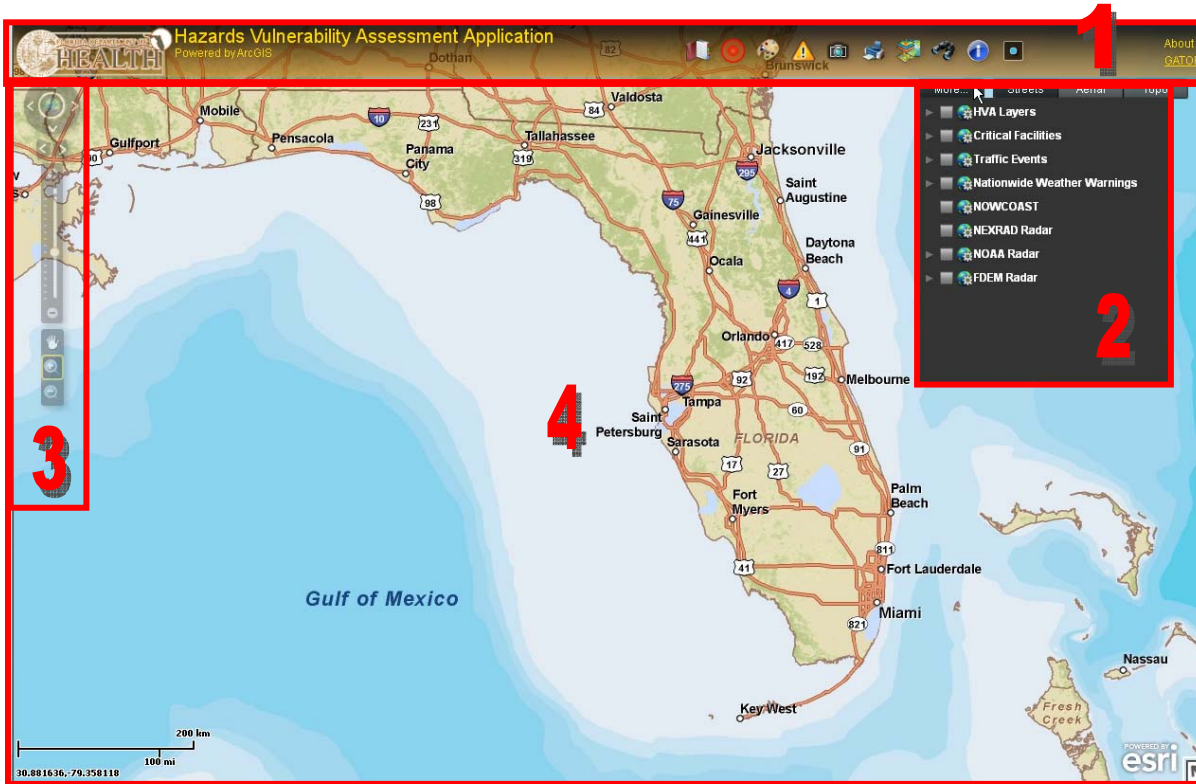


The More tab is where the user controls the visibility of map layers. When a user needs to see a layer within the application they must click the check box next to the desired layer. If the layer is within a group the group must also be turned on in order for the layer to be visible. To turn off a layer the user will need to uncheck the box next to the desired layer. In the example below the FL_DOH_Environmental_Health layer would not be visible because the parent layer HVA Layers is not checked. Also, the user can view these layers in street, aerial or topographic backgrounds.



Main Page Layout

The main page layout is the introductory page the user sees in the Public Health Hazards Vulnerability Assessment Application.



The main page is divided into 4 regions.

Region 1, the Toolbar, all the tools within the toolbar region are described in the Toolbar section;

Region 2 is the Map Control, contains expandable windows that control the map layers and display map information;

Region 3, Navigation Region, contains extent view, pan and zoom;

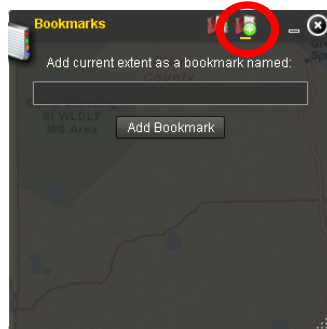
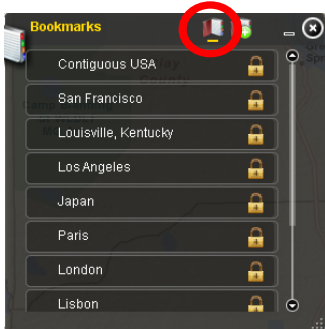
Region 4, the map itself, displays the spatial data and is where the majority of user interaction occurs in the application.

1. Toolbar

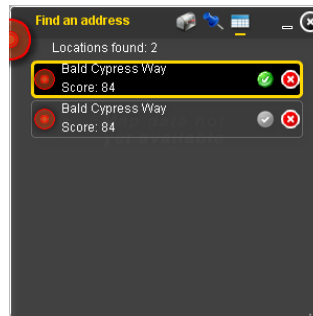
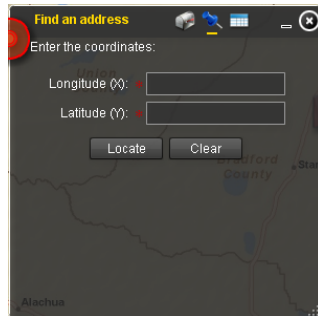
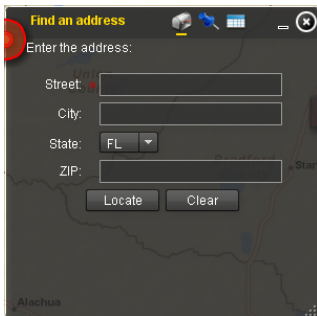
The toolbar contains buttons with navigation and analysis functionality. Following the toolbar layout below, each tool is listed with a short description of its functionality.



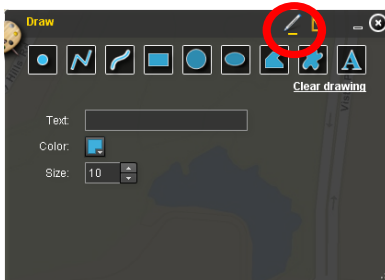
Bookmarks – User can add and save current map extent as a bookmark.



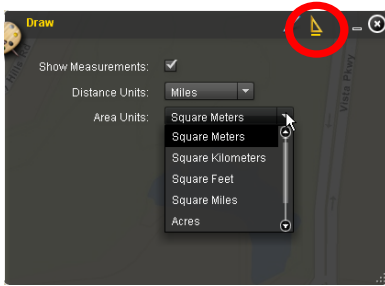
Find an Address – User enters an address, map extent zooms to location and provides coordinates.



Draw



User can draw point, line or polygon and label it on the map extent.



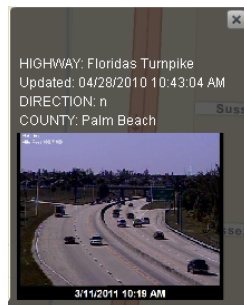
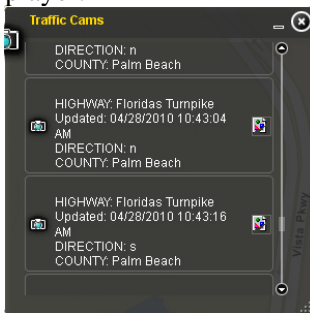
Measurements for distance (meters, kilometers, feet and miles) or area (square km, square meters, square feet, square miles or acres) will be displayed on map extent.



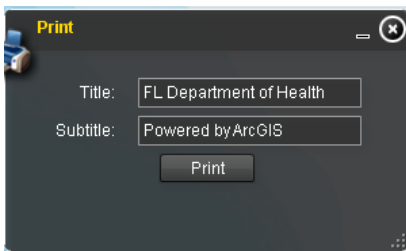
Traffic Incidents – A list of current traffic incidents in Florida will appear. The user may zoom to each by double clicking on the list.



Traffic Cams – Traffic cameras on major roads in Florida are displayed via adobe flash player.



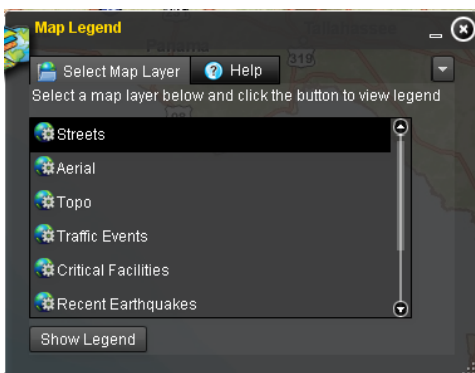
Print



The map extent will print an 8.5” x 11” page with a static legend. User can define title and subtitle.

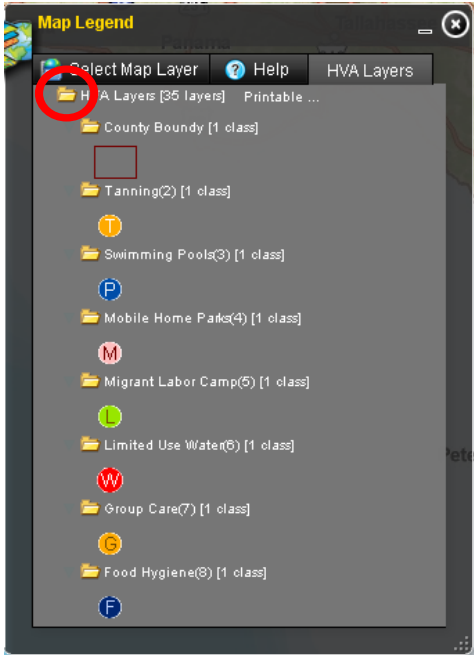


Map Legend



The map contains one or more MapService Layers, which in turn can contain several layers within it.

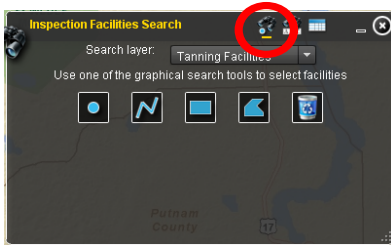
From this view the user can select a map layer then press the “Show Legend” button. A new tab will be displayed containing the symbols and titles in that layer.



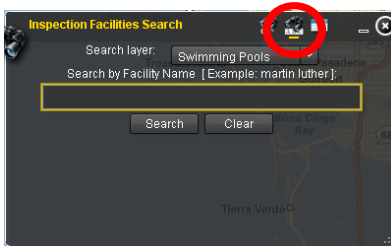
The user can select the folder icon for that map layer to view a printable version of the legend.



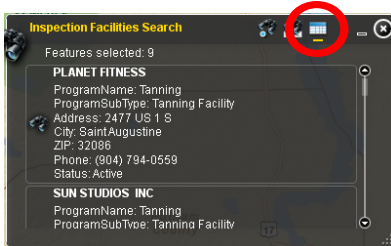
Inspections Facilities Search



User can draw a point, line or polygon and choose EHD facility type to get list of facilities within that area.



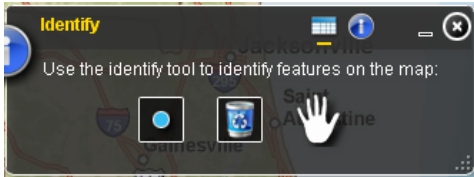
User can enter a facility name and search by EHD facility type. Facility will display on map extent with address and contact information.



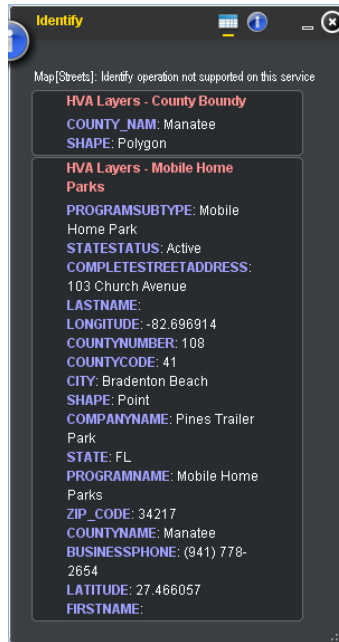
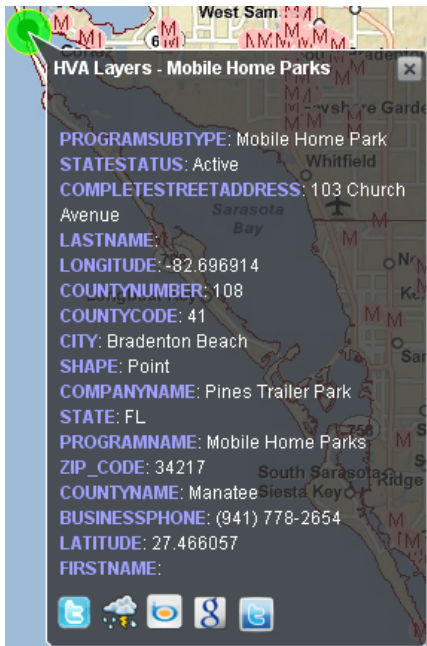
A list of EHD facilities will be displayed from the above searches.



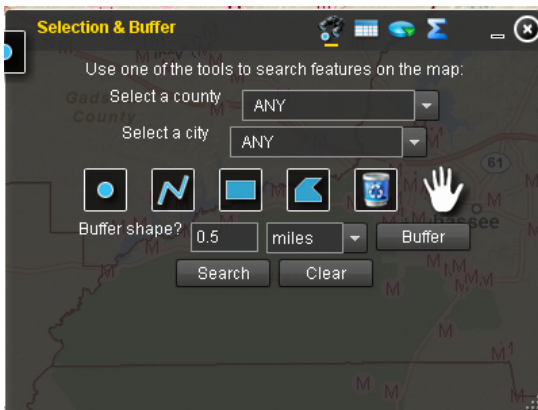
Identify



Select the dot tool and click on map. The attributes will be displayed for that point. The trash bin clears the selection and the hand drags the map extent.



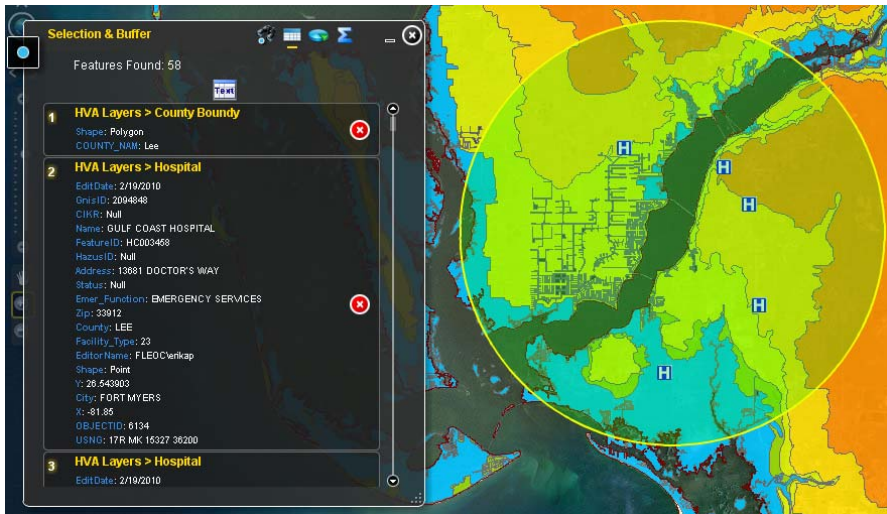
Selection & Buffer



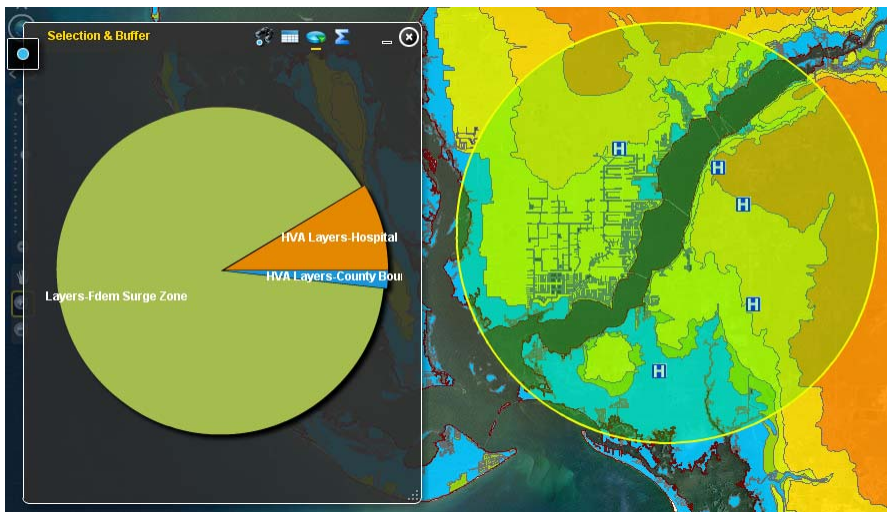
User may select a county, city or draw a point line or polygon with or without a buffer to view the active attributes/layer.

The list of attributes within the selection will be exported to a spreadsheet and may be downloaded and saved.

The tool also provides a quick summary of the types of facilities within the selection.



The user defined buffer is shown on the map. This map extent may be printed to an 8.5 x 11 and/or saved as an xps document and emailed.



The tool also provides a quick summary of the types of facilities within the selection.



For the user guide link and more information about ArcGIS Viewer for Flex, ArcGIS API for Flex and ESRI



Link to Florida Division of Emergency Management Geospatial Assessment Tool for Operation and Response



Navigation Control



The globe moves and rescales the map back to a global view.



The < moves the view to the previous map extent and the > moves the view forward.

The sliding scale allows the user to zoom in and out.



This function allows the user to click and drag the map in any direction. The map retains the same display scale. Once the map has been moved to the new location the map is redrawn.



The zoom in tool is used to draw a square or click a location on the map to decrease the display scale. This enables the user to zoom in to the desired area.



The zoom out tool is used to draw a square or click a location on the map to increase the display scale. This enables the user to zoom out to the desired area.

Definitions

FDOH Facilities

EHD data services: Desktop users can now view geocoded EHD data in ArcGIS desktop. User will have to add the GIS directory (<http://gis.doh.state.fl.us/ArcGIS/services>) to their list of GIS servers. The EH data layers are updated daily.

FL DOH Environmental Health Facilities

- Tanning
- Swimming Pools
- Mobile Home Parks
- Migrant Labor Camps
- Limited Use Water
- Group Care
- Food Hygiene
- Body Piercing
- Biomedical Waste

FDEM Critical Facilities

Florida Division of Emergency Management statewide critical facilities inventor: "Critical facilities" are defined as those structures from which essential services and functions for victim survival, continuation of public safety actions, and disaster recovery are performed or provided. Shelters, emergency operation centers, public health, public drinking water, sewer and wastewater facilities are examples of critical facilities. Additionally, other data layers, like Hazardous Materials Facilities, Mobile Home Parks, and Hotel/Motels, while not specifically critical facilities, are facilities of interest for emergency managers, and are included in this encompassing database.

Emergency_Services

- Call Center - PSAPs inventoried from <http://fcn.state.fl.us/dms/e911/plan.html>
- Emergency Medical Service - FDOH and archived sources
- Emergency Operation Center - FDEM
- Fire Station - <http://fcn.state.fl.us/dms/e911/plan.html>
- Law Enforcement - archived sources

Hazardous_Materials

- Hazardous Materials Facility - extract from HMIS database

Correctional_Facilities

- Correctional Facility - HSIP Freedom and archived sources

HealthCare_Facilities - <http://facilitylocator.floridahealthstat.com>

- Adult Family Care Home
- Ambulatory Surgical Center
- Assisted Living Facility
- Clinical Laboratory
- Crisis Stabilization Unit
- End-Stage Renal Disease
- Hospice
- Hospital
- Intermediate Care Facility
- Residential Treatment Facility
- Skilled Nursing Facility

Transitional Living Facility

Human_Services -

Education - <http://doeweb-prd.doe.state.fl.us/EDS/MasterSchoolID>

Shelters - <http://eoonline.org> and archived sources

Infrastructure

Communications

Radio Communications Tower - archived sources

Television - archived sources

Community_Resources

Attraction - archived sources

Community Center - archived sources

Faith-based Facility - archived sources

Library - archived sources

Local Government Facility - archived sources

Relief Agency - archived sources

Stadium - archived sources

State Government Facility - <http://smsisdzmz02.state.fl.us/docs/sfi/search.asp>

Infrastructure

Public Water Supply - FDEP by data request

Solid Waste Facility - FDEP by data request

Wastewater Facility - FDEP by data request

Transportation

Airports - archived sources

Commercial Ports - archived sources

Major Intersections - archived sources

Heliport/Helipad - archived sources

Seaplane Base - archived sources

AHCA Definitions

Adult Family Care Home - The Adult Family Care Home is a residential home designed to provide personal care services to individuals requiring assistance. The provider must live in the home and offers personal services for up to 5 resident.

Ambulatory Surgical Center—an ambulatory surgery center (ASC) is a licensed facility that is not part of a hospital and that may also be Medicaid/Medicare certified. The primary purpose of this type of facility is to provide elective surgical care. The patient is admitted to and discharged from the facility within the same working day. Overnight stays are not permitted.

Assisted Living Facility—The Assisted Living Facility is a facility designed to provide personal care services in the least restrictive and most home-like environment. These facilities can range in size from one resident to several hundred and may offer a wide variety of personal and nursing services designed specifically to meet an individual's personal needs.

Facilities are licensed to provide routine personal care services under a "Standard" license, or more specific services under the authority of "Specialty" licenses. ALFs meeting the requirements for a Standard license may also qualify for specialty licenses. The purpose of "Specialty Licenses" is to allow individuals to "age in place" in familiar surroundings that can adequately and safely meet their continuing healthcare needs.

Crisis Stabilization Unit—Crisis Stabilization Units (CSUs) provide brief psychiatric intervention, primarily for low-income individuals with acute psychiatric conditions. Inpatient stays average 3 to

14 days, resulting in return to the patient's own home or placement in a long-term mental health facility or other living arrangements.

Hospital--A hospital offers services more intensive than those required for room, board, personal services and general nursing care, and offers facilities and beds for use beyond 24 hours by individuals requiring medical, surgical, psychiatric, testing, diagnosis, treatment, or care for illness, injury, deformity, infirmity, abnormality, disease, or pregnancy. Also available are clinical laboratory services, diagnostic X-ray services, and treatment facilities for surgery, obstetrical care, or other definitive medical treatment of similar extent.

Residential Treatment Facility- Residential Treatment Facilities (RTF) is community-based residences for de-institutionalized state mental hospital clients. Residents are limited to those ages 18 or over. These facilities were designed to provide long-term residential care with an overlay or coordination of mental health services. A state license covers five levels of care that range from having nurses on staff for 24 hours daily to independent apartment residences that receive only weekly staff contact.

Residential Care Centers (for adolescents) -- Residential Treatment Centers for Children and Adolescents (RTC) are 24 hour residential programs, including therapeutic group homes, under contract with the Department of Children and Families (DCF) or the Agency for Health Care Administration (AHCA). These centers were designed to provide mental health treatment and services to children under the age of 18 who have been diagnosed as having mental, emotional, or behavioral disorders.

Skilled Nursing Facility—an institution that provides long term and sub-acute care to persons in need of 24 hour nursing services or significant supportive services.

Transitional Living Facility – A site where specialized health care services are provided, including, but not limited to, rehabilitative services, community reentry training, aids for independent living, and counseling to spinal-cord-injured persons and head-injured persons.

Clinical Laboratory— All health care facilities including physician offices that perform any clinical laboratory testing of specimens, culture, bodily fluids, etc.

Intermediate Care Facility – A residential facility licensed and certified in accordance with state law, and certified by the Federal Government, pursuant to the Social Security Act, as a provider of Medicaid services to persons with developmental disabilities.

Home for Special Services (only one in the state)—A site licensed by the Agency prior to January 1, 2006 where specialized health care services are provided, including personal and custodial care, but not continuous nursing services.

Hospice--are not for profit agencies licensed to provide supportive care in the homes of terminally ill patients.

End-Stage Renal Disease – A facility which provides specialized services to assist individuals who have been diagnosed as having an irreversible and permanent kidney disease which requires dialysis and/or kidney transplantation to maintain life.

CDC Human Vulnerability Data

When creating a selection and/or buffer using this layer, it is recommended to select one index at a time.

The HVA Index provides a framework within which state and local decision-makers may examine how people's social circumstances, such as age, race, or socioeconomic status, contribute to their vulnerability to, and ability to recover from, the effects of natural or anthropogenic disasters.

The HVA Index is built upon four over-arching indicator groups that are closely associated with varying human vulnerability to disaster.

- 1) Economic (income, poverty, employment, and education);
- 2) Personal and Household (age, dependency, disability, and single-parenting);
- 3) Race and Ethnicity (minority status and non-English speaking); and

4) Housing and Transportation (housing (urban and rural), crowding, and transportation).

The HVA Index data are from the 2000 US Census of Population and Housing, census tract level.

Economic

(Income, Poverty, Employment, Education)

The variables used to measure this domain include:

- 1) percent individuals below poverty;
- 2) percent civilian unemployed;
- 3) per capita income; and
- 4) percent persons with no high school diploma.

Personal and Household

(Age, Dependency, Disability and Single-Parenting)

The variables used to measure this domain include

- 1) percent persons 65 years of age or older;
- 2) percent persons 17 years of age or younger;
- 3) percent persons more than 5 years old with disability; and
- 4) percent households with male or female householder, no spouse present, with children under 18.

Housing and Transportation

(Housing, Crowding, and Transportation)

The variables used to measure this domain include:

- 1) percent multi-unit structures;
- 2) percent mobile homes;
- 3) crowding;
- 4) no vehicle available; and
- 5) institutionalized population.

Race and Ethnicity

(Minority Status and Non-English Speaking)

The variables used to measure this domain include:

- 1) percent minority; and
- 2) percent persons five-years of age or older who speak English "less than well".