

Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) Threat Incident GIS-Enhanced Response (TIGER) System

Wisconsin's Department of Agriculture, Trade and Consumer Protection (DATCP) Division of Food Safety (DFS) received funding to support development of the Threat Incident GIS-Enhanced Response (TIGER) System. TIGER will be an innovative geographic information system (GIS)-enhanced platform for monitoring the safety and inspection status of food facilities during response and recovery after a food terrorism incident. TIGER will allow users to produce GIS maps that identify food establishment status (e.g., at-risk and not yet inspected; inspected and closed due to remaining hazards; inspected and determined to be safe; and not at risk) after a terrorism incident. TIGER will use FoodSHIELD to share information and data. For example, field staff will be able to enter information on FoodSHIELD to update the status of a facility and industry will be able to submit distribution lists online.

TIGER will integrate functionality and information from several existing components into a single, more effective tool to track and guide response and recovery activities after a food terrorism emergency. It will be an innovative tool for monitoring and sharing information about the food safety status of establishments involved in food terrorism emergencies. TIGER will not only be a useful model that other states may be interested in adopting for food terrorism events, but it may also be adapted for monitoring other food safety issues. Funding for the project is being used to support the staff time needed to develop TIGER and to support two table-top exercises to determine the effectiveness of the system.

North Carolina Department of Environment and Natural Resources Best Environmental Technology System (BETS) Map Web-Based GIS Mapping System (BETSMap)

Background

The NC Department of Environment and Natural Resources (NCDENR) regulates retail food service facilities via authorized local environmental health specialists located within 86 health departments that serve all 100 counties in the state. The database for NCDENR-regulated facilities is within the Best Environmental Technology System (BETS). BETS is a repository of current and historical information related to DEH-regulated facilities and establishments. Web-based forms allow for the entry, review and approval of inspection and reporting information, captures the specifics of any violations found during the inspections, as well as pertinent comments from the local Environmental Health Specialists. The system automatically computes the final score at the end of each inspection and generates the grade card.

NCDENR has completed a new module for BETS that will serve as a clearing house for all consumer complaints relating to NCDENR-regulated facilities and illegal food sales collected via local environmental health programs. The complaint database will specifically target ten categories of complaints: illness, adulterated food, improper hygiene/handwashing, contamination of food/surfaces, undercooked food, unsanitary conditions, water/wastewater, interrupted facilities/disaster/fire, illegal operation, and miscellaneous. Local authorized environmental health specialists will investigate the complaint and only enter the valid complaints into the system. Users will have the capability of searching the database by specific complaint types, dates, county, location, key word, and complainant name.

BETSMap

BETSMap will provide a web-mapping interface with map-based visualization and search capabilities designed to spatially display NCDENR-regulated facilities and consumer complaints (by type, date, county, and location). BETSMap will provide a tool for local, state, and federal partners to strategically plan initiatives, allocate resources, and analyze and evaluate emergency response activities. The spatial analysis of data also improves surveillance by providing opportunities to reveal undetected patterns by linking previously disparate datasets.

BETSMap will be available for use by all local, state, and federal partners. It will provide users with the tools for spatially informed planning, analysis and emergency response. Specifically these tools may include:

- Quick identification of jurisdictional areas and DENR/DEH/EHS-regulated establishments affected by localized emergency events;
- Efficient and timely response to emergency issues at establishments statewide by leveraging mass-market mapping web services and their APIs for trip routing and driving direction generation;
- Targeted surveillance of events by monitoring complaint types statewide (e.g. a food tampering event may be detected first via local complaints); and
- GIS-informed analysis of data to identify similar complaints and/or illnesses that may be linked geographically or related to specific environmental phenomena.

Specific functionalities that will be designed include:

- Zoom to specific NC county map
- Identify the geocoded physical address of a specific location
- Identify specific location coordinates
- Manual input of specific coordinate; zoom to coordinate
- Radius Identification: will allow user to click the map and specify a distance radius (in feet, miles, meters or kilometers). The tool will select and produce a report listing all features in a user specified map layer (e.g. food service establishments) The user should be able to click on the unique ID of each returned record in the selected list and the map view will zoom to that location. Information in the report can be printed, exported to a PDF file, or copied and pasted to a text document
- Access to facility data: User may click on a specific facility shown on the map and access the data files with BETS (e.g. inspection reports, permit information)
- 3-D Map View: User can toggle the map view into a split pane between regular 2D map and 3D view
- Find Tool: user may scan a data layer specified by the user and return a list of records containing the user specified search word. User should be presented with a list of the text/string columns present in that data layer and they will pick the one they want to search in. The user should be able to click on the unique ID of each returned record in the "Found" list and the map view will zoom to that location.

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Oklahoma State Department of Health (OSDH) Consumer Protection Division

The Consumer Protection Division of the Oklahoma State Department of Health (OSDH) proposes to develop a food defense training program. The project objectives to meet the FDA's goals of awareness, response and recovery of intentional food contamination include training applicable regulators in food defense awareness, risks and mitigation strategies using a program that would be innovative and transferable for use by other national, state and local entities. These regulators would then be charged with assessing, training, and impacting a targeted group of Oklahoma's food service establishments over a 12- month period. Methods for accomplishing project objectives include use of the FDA's current programs in food defense awareness and Oklahoma's established food safety infrastructure to develop and deliver a food defense training project.

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Website: <http://www.ok.gov/health/documents/CP-OSDH%20FOOD%20DEFENSE%20Self%20Assessment.pdf>

Westchester County (New York) Department of Health

The primary aim of the proposed project is to develop a food defense training module which can be incorporated into existing training programs for food service managers and workers to increase awareness of the potential for intentional introduction of deleterious agents that can cause large-scale food borne illness. There will be 2 versions of the module, which will vary in length so as to be more easily integrated into existing food safety training programs which are offered for both service workers and managers.

The goals of this project are to introduce the concept of "intentional contamination" as a key component of any overall food safety program and to improve food safety at point-of-sale food service establishments. The specific objectives of the training modules will be to illustrate the common food defense vulnerabilities that exist in food service facilities and the mechanisms by which these vulnerabilities can be eliminated or mitigated.

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South Carolina, Division of Food Protection, Bureau of Environmental Health

The proposed project will build on the research and educational material development work completed under two funded projects supported by the CDC and U.S. FDA respectively. Both projects were awarded to SC DHEC and carried out in collaboration with the University of South Carolina. Under the earlier projects, we developed a survey instrument and assessed the South Carolina restaurant industry's preparedness to preempt intentional food contamination, and assessed their specific informational needs to enable such preparedness. The educational needs assessment results

were used to select messages for greatest potential impact, and to prioritize their distribution to restaurant locations showing the most deficiency in sound practices. We developed 2 manuscripts for publication (including the surveys) so that the results could be disseminated for similar work by other states. DVDs and brochures were developed for distribution within South Carolina.

Website: <http://www.scdhec.gov/health/envhlth/food-safety/defense.htm>

Riverside County (California) Department of Environmental Health

Utilizing previous innovative food defense program funds, Riverside County began introducing food defense by installing a television screen and computer signage component in our main office lobby. The television was placed in the area where food workers study before taking their required food worker certification examinations. The Department was able to present training materials, such as the Employee First DVD, to the food worker audience. This, in addition to the incorporation of food defense training materials and questions into our food worker certification training and examination, was very successful in providing food workers in the city of Riverside with food defense concepts. This year the Department would like to take these efforts one step further by installing the television screens in the remaining six Environmental Health office lobbies. By expanding the project to encompass all offices where food worker examinations are currently given the Department will be able to reach a larger percentage of Riverside County food workers. Since all food workers are required to renew their certification every two years, the capacity to reach all food employees and increase their awareness of food defense is high.

During the 2010/2011 grant year, Riverside County plans to accomplish the following objectives:

- Continue to distribute the information of food defense to food facility employees and managers.
- Install television screens, digital signage control systems and audio in the remaining six office lobbies. The screens will run the Employees FIRST DVD in the areas where the food workers are preparing to take their required food worker certification examinations.
- Create a video of the Riverside County Food Worker Certification manual, incorporating food safety practices with the food defense information from the Employees FIRST DVD. Copies of the DVD will be provided to food workers and food facilities requesting an additional teaching tool. The video will also be added to the rotation of programming presented to food workers on the lobby televisions.
- Contract with a graphic artist to develop a brochure describing the key concepts of the Employees FIRST food defense program. The brochure would provide a visual presentation of the Employees FIRST initiative and would build on the information cards already available through the FDA. These brochures will be distributed to all food facility employees when they obtain their food workers certification card but will also be available for food facilities requesting information on the initiative.
- Design and distribute useful promotional items to remind food workers about the food defense concepts they have learned. The promotional items will feature the FIRST mascot, Ace.

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Website: http://www.rivcoeh.org/opencms/rivcoeh/ProgServices/Food_Program/Make_the_Smart_Choice.html