

# Project Proposal:




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Web-based open burn authorizations is a software project whose goals would provide many benefits to the users, public burners and Certified Burners, as well as to the Division of Forestry staff. Burners would be presented with a simple, efficient way of requesting an authorization, the request and its subsequent denial or approval would be instantly available for division staff's knowledge. Development and implementation of this project would require input and cooperation from federal, state, and local agency personnel as well as private individuals and companies. The Division of Forestry will have to work with the information technology personnel from the various agencies to insure that the system can function on our cooperators network, a lesson learned from a previous programming project. The system would have to interface with our current Fire Management Information System which tracks all of our wildfires and open burn authorizations. This system is being evaluated by other states for their possible use and this is the next progression on that system. The base fuel data layer for smoke plume generation comes from the fuels data layer from the risk assessment. Anticipated budget would be \$300,000 for year one and \$200,000 for year two. Expected completion would be quarter 4 of 2010. All funds would be matched by Florida Division of Forestry personnel costs as well as cooperator in kind costs.

Florida Division of Forestry

State of Florida (all 67 counties)

Quarter 4, 2010

\$500,000? (Year 1-\$300,000, year 2-\$200,000)

The budget below indicates funding levels for each state's project components. Some aspects of education and outreach will be completed and funded cooperatively, while control components will be handled by respective states.

Cost Category	Florida – year 1		Florida year -2		REQUESTED	MATCH	TOTAL
	REQUESTED	MATCH	REQUESTED	MATCH			
Personnel		\$292,000		\$195,000			
Materials & Supplies		\$2,500		\$2,500			
Equipment	\$50,000						
Travel		\$5,000					
Contracts	\$250,000		\$200,000				
Printing		\$2,000		\$2,500			
Administration		\$2,500					
<b>TOTALS</b>	<b>\$300,000</b>	<b>\$300,000</b>	<b>\$200,000</b>	<b>\$200,000</b>			<b>\$500,000</b>

Web-based open burn authorizations is a software project whose goals would provide many benefits to the users, public burners and Certified Burners, as well as to the Division of Forestry staff. Burners would be presented with a simple, efficient way of requesting an authorization. There may be a need to upgrade the agency's existing infrastructure based on the projected number of server hits. We will use the current Fire Management Information System (FMIS) as the base for this process. Smoke management is always a concern and the smoke plume generated by the FMIS is based on the fuels data layer from the Risk Assessment. Other states wishing to implement a similar project would be able to use their Risk Assessment fuels data layer as the basis for generating smoke plumes if they adopt a similar program.

It is recommended that the project be phased in over the course of the project term. The project should begin with a release available to a low-risk, controlled group of DOF staff burners and expanding in stages to a final stage of a pre-registered, public user who can request an authorization. The full implementation would take place beginning in the fourth quarter of 2010.

The following steps define the project user-groups and the functional release periods following the applications' beta testing. Each step expands the scope and volume of the application:

- Focus on application proof-of-concept using defined burners, type-of-burns, and area.
  - Responsible person will be division personnel or select agency personnel
  - Burn type is a Silvicultural choice
  - Managed Land areas
  - Small volume of requests limited to one – three Districts
  
- Expand geographic coverage statewide using the same burner group and type-of-burns.
  - Expand to include all districts
  - Responsible person will be division personnel or select agency personnel
  - Burn type is a Silvicultural choice
  - Managed Land areas
  
- Expand users to all burners and all types-of-burns for the coverage area.
  - Any authorized responsible person for a managed land burn
  - Any burn type within the managed land area
  - All districts
  - Managed land areas

In order to properly address the development of the project a preliminary assessment would be conducted involving stakeholders in the open burn authorization process. This would involve FDOF staff, both those that conduct burning and those that authorize the burns, Federal, state, and local government and private open burners. Each has a different set of expectations and needs and these will have to be addressed as best as possible and still allow the FDOF to follow the established open burning statutes and rules.

The web based open burn authorization will make it easier for agency personnel and private contractors to receive their authorizations in order to conduct their burns. This should allow for more burning to be done because a requestor would be able to look online to see if they are approved as opposed to the current system where many of them move personnel and equipment only to find they can not burn in a location but could have in a secondary location. Hazardous fuel reduction and silvicultural burns would provide for reduced risks from wildfires and healthier forests. The system also generates a smoke plume for each authorization which may become a necessary data layer as EPA implements or develops new air quality standards.

Our Fire Management Information System is based on a dot.net platform that uses several GIS data layers that are readily available from outside sources and from the Southern Risk Assessment. Since Florida has a very active open burn program any program of this type should be scalable to any other state in the south or the nation.

#### Prioritization –

Meaningful Scale – This project starts out small as any IT project should, and then develops into a state wide application. Several states have expressed interest in our FMIS, which if they adapt it for their state which in turn would allow them to use the on line authorization process. All of the southern states have the base fuel layer that is needed because of the work done for the Southern Risk Assessment.

Collaboration – No project of this scale could be done without collaboration of stakeholders. We will need to work with all of the burners in the state in order to make the system customer friendly, simple to use, and must be able to interface with different agency and private computer servers and their inherent security issues. Initially we would need to meet with a small representative group of agency and private burners to develop and agree to the web based interface details, i.e. which items would they be required to complete, notification process, and possibly other items. Our initial focus group would include state of Florida agencies such as DEP, FWC, and the water management districts and Federal agencies such as NPS, USFS, and USFWS and representatives from the private sector including TNC, Tall Timbers, and the Florida Forestry Association and the Florida Prescribed Fire Councils.

Outcomes – The State of Florida currently issues 115,000 open burn authorizations for two million acres a year on average. This system, should allow us to increase our authorized acres to above this average, by streamlining the process and allowing burners to see if they will be allowed to burn before they move their personnel and equipment. All funding will go towards the development and implementation of the on line or web based authorization system. We would like to increase our annual burn acreage to close to three million acres a year in order to provide for better wildfire prevention and healthier forests.

Technology – The current FMIS allows for the mapping of open burn authorizations on an ArcGIS platform and can be currently viewed via the internet mapping service that has been developed. As mentioned previously one of the base layers for an open burn authorization is the fuels data layer. Florida currently uses this data layer developed by our risk assessment project to generate smoke plumes for all of our open burn authorizations; an example of a smoke plume is at the end of this document. Other southern states could use the fuels data layer from the Southern Risk Assessment, as well as data layers from their departments of transportation for highway and street information.

Integrated Delivery – The State of Florida open burn authorizations are currently displayed via a mapping service that is available for any of our cooperators to view in order to see either open burning in their area or wildfire activity that may be occurring. Other fire agencies are able to view these authorized fires as well as wildfire locations to see if there is any threat to their jurisdictional responsibilities.

Leverage – The project, because of its interagency implications will require in kind contributions for all of the stakeholders involved. This includes all levels of government and the private sector. We will also use the three prescribed fire councils that are in the state as conduits for getting the information exchange that needs to be done completed. Articles in the various trade publications, forestry association, farm bureau, cattlemen's association and the extension service will also be used to provide for information delivery and exchange. The meetings with the stakeholders will have to be done regionally in order to insure maximum participation and minimum disruption of people's schedules.

Influence Positive Change – This project will allow for the open burn authorizations to be completed in a manner that the newer workforce is more familiar with, via the internet. Once completed, it should make getting an open burn authorization easier to receive. Burners can view the 11:00 PM weather forecast on their local news to get a general idea if it will be favorable for burning the next day and submit a request for an open burn authorization right then and know by 8:00 AM if it is approved, without having to make a telephone call, either local or long distance. This type of delivery system is becoming the method of choice as the demographic of our landowner base become more modern or digital.

Timelines – We believe that limited testing can begin within six months of the project commencement. We should be able to phase it in within less than two years from the initial award so that it is state wide in scope and operational. Other states if they adopt this system could potentially shorten the implementation time by six to ten months because of the need to educate everyone in the use of a new system.

This is an example of a smoke as diagrammed by our smoke screening tool, this is the same map that is developed during our burn authorization process that is done at our fifteen dispatch centers across the state.

