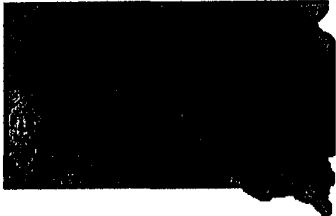


Office use only: I.d. # _____ date received _____ award \$\$ _____

NoPW033004-15



2004 Department of Health Mosquito Prevention and Control Grant Application

This application may be used to apply for a grant award to support integrated mosquito controls at the local level by a municipality, county, tribal government, or any combination of the above through a co-op arrangement.

March 25, 2004
Date

Applicant (City or County or Tribal Agency or a Co-op)

CITY OF RAPID CITY
Applicant Name Check one: Municipality County Tribal Agency Co-op
James Preston, Finance Officer

Primary Contact (Name and Title or Position of person submitting the application on behalf of applicant)

Mailing Address

300 Sixth Street
Street Address
Rapid City SD 57701
State Zip Code
(605) 394-4143 (605) 394-2232 jim.preston@rcgov.org
Phone Number Fax E-mail Address

Joint Applicants

Names of additional municipalities or counties or tribal agencies applying jointly as part of a Co-op for purposes of this grant award application process

Required Attachments

- ❖ Mosquito Prevention and Control Plan yes no
- ❖ Budget yes no

Signature

Submit Application to: South Department of Health
600 East Capitol Avenue
Pierre SD 57501

Rapid City Mosquito Control And West Nile Prevention Plan Draft 3/25/04

Overview:

Based on historical short term data West Nile Virus will be present in our community in the 2004 season. Last season in Pennington County 139 cases of West Nile detections were reported. However it is not possible to predict the number of human cases of the disease based on past year's statistics. The actual cases may be higher or lower than last year (2003 season). The focus of this plan will be to reduce the risk of West Nile Virus through education and prevention. Eliminating the risk to a point where personal protective measures would not be necessary is not possible. The City of Rapid City and Pennington County government will cooperate as much as possible in any proposed plan.

Geographic area:

The control area will include the areas within the City of Rapid City and the Rapid Valley area. The City of Rapid City and Pennington County will determine the area covered by the project. It is estimated the project area covers approximately 46 square miles and serves a population base of approximately 60,000. (See attached map)

Public Education and Awareness:

Education and public awareness are key components of a comprehensive prevention and control strategy for West Nile Virus. Pennington County Emergency Management in cooperation with South Dakota State University, Pennington County Extension Service, and the South Dakota State Department of Health will provide information and public education within Pennington County and its participating municipalities for the control of mosquitoes and West Nile Virus prevention.

We will implement a jurisdiction-wide educational campaign to inform our residents about our mosquito control program and our west nile virus preparedness campaign. This will include information ranging from source reduction strategies and how the public can help, the population monitoring program and how that determines the timing of larval and adult control measures, and the products used for larval and adult control measures.

We will work with the local media and other community partners to educate the public on the importance of personal protection and ways in which they can protect themselves and their family. For instance, we have a west nile virus preparedness three-fold flyer that is available to every resident of Pennington County on personal protection and source reduction methods...both strategies the public can readily assist us with. In addition, we

will directly distributing the flyer to public buildings, hospitals, day care centers, senior citizens residential living centers, nursing homes, extended care facilities, golf courses, etc.

We will also be sending west nile virus preparedness and mosquito information coloring books to all the pre-schools in the County. In addition, we will be distributing SD Cooperative Extension Service WNV/mosquito posters to public buildings, hospitals, nursing homes, extended care facilities, day care facilities, etc.

In addition to working with the local media to develop procedures for informing the public of the timing and location of adult mosquito control applications each media outlet...print and electronic...in Pennington County will receive urgent news advisories on the time and location of adulticiding applications via a pre-existing Media Group Broadcast Fax. Also, each media outlet will receive fact sheets and brochures explaining the importance of this education and awareness campaign and soliciting their support.

Our mosquito control program and west nile virus preparedness campaign will augment and complement the campaign to be conducted by the SD Department of Health and the SD Cooperative Extension Service.

We will also be sending timely news releases to both print and electronic media covering common concerns, questions and answers about mosquitoes and specific actions that individuals, homeowners and businessmen should take to prepare for and reduce the sources of mosquitoes in our jurisdiction.

Mosquito Surveillance:

City of Rapid City mosquito control plan will include both larval and adult mosquito surveillance. Rapid City Parks Department will conduct surveillance on City of Rapid City public property and will include monitoring mosquito traps in different locations within the city. Those areas will typically be the large tracts of public recreation areas including golf courses, large community park areas, sports field complexes, and recreational trails (especially along waterways such as Rapid Creek). The Rapid City Parks Division is currently compiling a list of potential mosquito breeding areas as well as mosquito resting areas. Areas along Rapid Creek and some of the major drainages within the City are suspect and will be included on this list. It is anticipated that in the Rapid City area monitoring and surveillance will be based more on disease transmission for public health purposes rather than nuisance based control as nuisance based control of mosquitoes has historically not been an issue within Rapid City.

Mapping:

Mapping and recording of geographic data will be accomplished by identifying potential mosquito breeding sites and harborages upon City owned public property and right-of-way with a list of those areas compiled by the City Parks Division. The City of Rapid City has an extensive GIS Department and personnel from that department will assist

with development of maps and systems to record and monitor data collected during the mosquito control program. Dates and locations of various applications and treatment areas will be recorded in GIS format so that this data can be used in conjunction with population monitoring data to determine effectiveness of control efforts as well as provide information to the SD Department of Agriculture on pesticide applications. The City of Rapid City will work with Jefferson Academy and their students to assist in recording data of known breeding areas and harborages within the community. Mosquito data will be collected in various large outdoor recreation areas to determine the need for adulticiding during the summer months.

Mosquito Control:

The West Nile virus in Rapid City is carried by two species of encephalitis mosquito, the Aedes and Culex. Encephalitis mosquitos were found positive for the West Nile virus in South Dakota in 2002. The plan to control these insects must be based on an understanding of their life cycle, reproductive cycle, habitat, and range of travel. A comprehensive mosquito control program employs source reduction, personal protection, larvaciding, adultaciding and public awareness.

(Non Insecticide Control and Source Reduction) Mosquito breeding site prevention activities on City owned property will be the responsibility of the Parks Division. Prevention may include activities such as drainage improvement projects, culvert repair, dewatering of metering dams, and any other project necessary to remove stagnant water sources. All entities leasing public property, such as sports fields for instance, will be notified in writing to encourage efficient use of facility sprinkler systems so as to not create standing water in and around sports fields and also to encourage the various sports leagues to provide information to participants and spectators on utilization of personal protection at various outdoor events. The Parks Division will provide posters and pamphlets to display at swimming pools and tennis courts, picnic shelters, and any other recreation areas under City jurisdiction. The spring City wide cleanup scheduled on April 24 will be geared to help in source reduction and to encourage the private property owner and manager to specifically deal with potential sources of mosquito breeding.

(Larvicide Control) Application of larvacide control products to stagnant water areas is deemed the most effective control measure to reduce mosquito populations. Rapid City Parks Division will be responsible for treating any targeted sources of stagnant water on publicly controlled lands within the city limits. The Parks Division will keep an inventory of these identified areas and will treat such areas with larvacide products as necessary by its own employees or under contract with private applicators. Storm drains and small ponds on public property which are directly affected by rainfall events will be treated with 30 day briquettes and a monomolecular film every 30 days or when monitoring requires treatment. Larger drainages within the City and County will be treated with 150-day briquettes once during the summer with more frequent applications of granular product every 10 days, or again, as monitoring dictates.

(Adulticide Control) Rapid City Parks Division will be responsible for adulticide applications in targeted (specific) locations within the City of Rapid City. As this is deemed to be the least effective control of mosquitoes this control measure will be used only as a last resort. Adulticide applications (spraying) will be handled by the City Parks Division and will include areas such as recreation trail, public golf courses, ballfields, soccer fields, public pools and other areas generally used by the public within the City Park System. It is anticipated that ULV applications will take in Park and Recreation areas on a once per week basis with more frequent applications within and around public swimming pools. It is anticipated that at least two ULV sprayers will be kept busy in early evening and early morning applications in most of these areas. Approximately 1,000 acres of park area and 10 miles of trail system could potentially be involved in the treatment area.

Certification and staffing:

The Mayor has designated the City Parks Division Manager as the mosquito control program coordinator for Rapid City. The Parks Division Manager has attended all seminars and programs offered by the State Department of Health and the State Department of Agriculture. This includes the program held in Pierre entitled South Dakota West Nile Virus Preparedness and Mosquito Control Seminar. In addition to the three Parks Division Employees who currently hold valid public operators licenses with the General Category and Ornamental and Turf Category they will also receive certification in the Public Health Category prior to any mosquito control product application. Additionally the City of Rapid City anticipates the hiring and licensing of two additional staff members to work in the mosquito control program efforts. The Parks Division Manager will provide the necessary orientation and training to those involved in the control program specific to the mosquito control program including product and equipment safety. The Parks Division Manager and assistant will attend applicable education and training opportunities presented by SDSU Cooperative Extension, State Department of Health or The SD Department of Agriculture and incorporate any pertinent information into the existing program.

Budget:

A proposed budget been attached to this Mosquito Control Plan.
(See attachment.)

Evaluation and Outlook for Long Term Sustainability:

This plan will be valid for the calendar year 2004. The Rapid City Council, Mayor and Staff in cooperation with the Pennington County Commission will evaluate the plan and make recommendations for any future program. The City of Rapid City currently has \$10,000.00 within the Parks Division Budget for mosquito control. Additional funding for the program as outlined in the attached proposed budget will have to be approved by the City Council. The source for this additional funding has not been as yet identified as of the completion of this draft (3/25/04).

Future funding for mosquito control will have to be approved by the Mayor and Council in budget hearings scheduled for this spring and summer. It will be recommended by the coordinator of this program that at least future programs be funded to the same degree as will be approved for Year 2004.

City of Rapid City Proposed Mosquito Control Budget 2004

Draft 3/25/2004

Quantity and Cost Estimate of Products Needed:

30 Day Larvicide Briquette 1500 @ .90 each	\$	1350.00
150 Day Larvicide Briquette 440 @ \$2.65 each	\$	1166.00
Monomolecular Film 10 gallons @ \$27.65	\$	276.50
Granular Larvicide 1520 lbs @ \$1.41 each	\$	2,143.20
Adulticide 50 Gallons @ 125.61 each (Permanone 30-30)	\$	6,280.50
Formulating Oil 200 gallons @ 7.10 each	\$	<u>1,420.00</u>

Total Product Cost \$ 12,636.20

Equipment Acquisition Costs

2 Light Traps	\$	153.00
2 ULV Sprayers	\$	8,000.00
2 Back Pack Unit	\$	1,225.00
6 Larval Dippers @ \$10.30 each	\$	<u>61.80</u>

Total Equipment Costs \$ 9439.80

Labor

Larvicide Briquets 80 Hours @ \$21.38	\$	1,710.20
Larvicide Granular 240 Hours @ \$21.38	\$	5,131.00
Adulticide ULV 630 Hours @ \$21.38	\$	13,496.20
Monitoring 60 Hours @ \$21.38	\$	<u>1,282.60</u>

Total Labor Costs \$ 21,620.00

Public Awareness and Education

Office of Emergency Management (Mailings, Brochures, etc)	\$	<u>5,000.00</u>
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Total Public Awareness Costs \$ 5,000.00

Total Budget Proposal \$ 48,696.00