

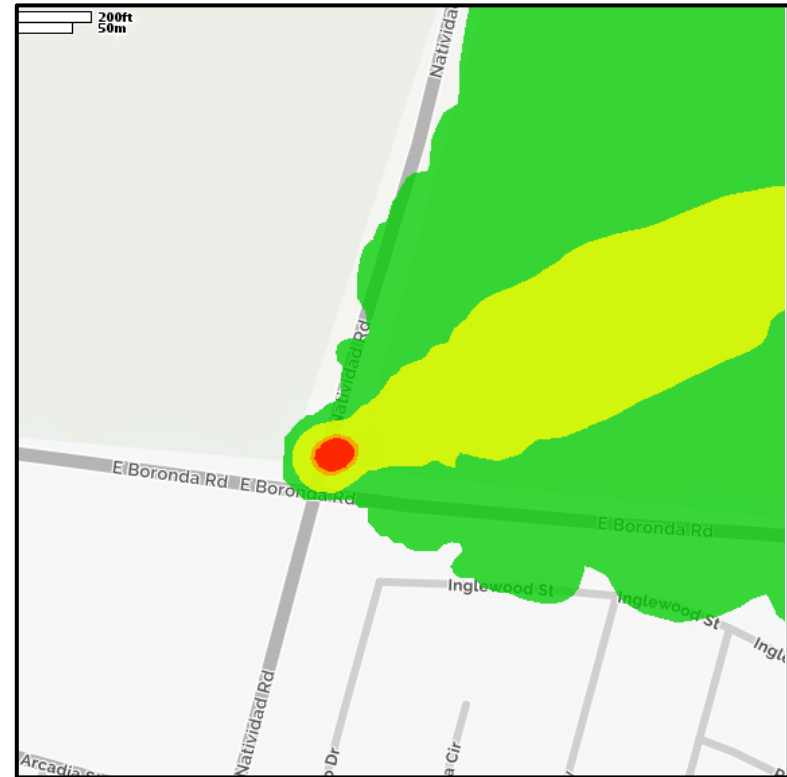
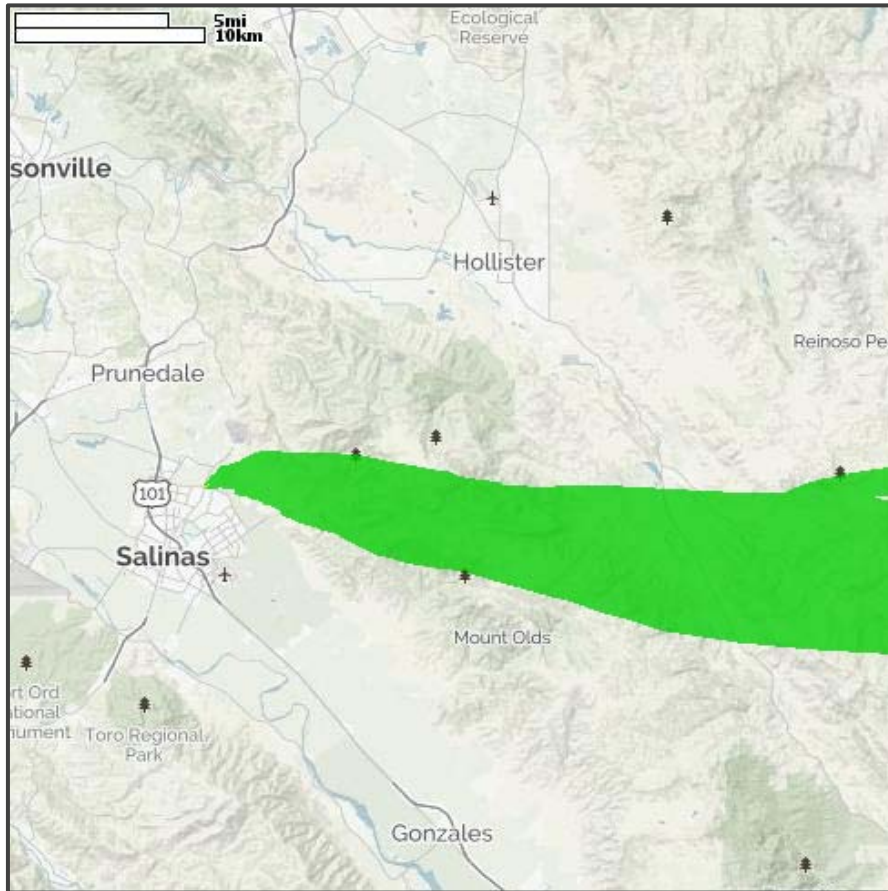
Example for Demonstration Only



Automated Report: Testing  
(36.71578,-121.62342)  
RDD Release at 2 Sep 2016 08:00 UTC

# Predicted Area for Potential Radiation Hazard in the RDD Vicinity

Total dose from radioactive release during first 24 hr after release



•Areas shown are model predictions based on an estimated source term; confirm with measurements.  
•Model assumes that no shelter or other protective actions have been taken to decrease exposure.

Produced: 2 Sep 2016 16:18 UTC

Advice & Recommendations: CDC 770-488-7100

Example for Demonstration Only

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(36.71578,-121.62342)  
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## Total dose from radioactive release during first 24 hr after release

Category	Description
5	<p><b>Category 5</b> means that radiation doses are dangerously high and potentially lethal (<math>\geq 200</math> rem).</p> <p>High doses of radiation can cause massive damage to organs of the body and kill the person. The exposed person loses white blood cells and the ability to fight infections. Diarrhea and vomiting are likely. Medical treatment can help, but the condition may still be fatal in spite of treatment. At extremely high doses of radiation, the person may lose consciousness and die within hours. For more information, see <a href="http://www.remm.nlm.gov/ars_summary.htm#whatisars">www.remm.nlm.gov/ars_summary.htm#whatisars</a></p>
4	<p><b>Category 4</b> means that radiation doses are dangerously high and can make people seriously ill. Radiation doses are not high enough to cause death, but one or more symptoms of radiation sickness may appear (<math>\geq 100</math> rem and <math>&lt; 200</math> rem).</p> <p>Radiation sickness, also known as Acute Radiation Syndrome (ARS), is caused by a high dose of radiation. The severity of illness depends on the amount (or dose) of radiation. The earliest symptoms may include nausea, fatigue, vomiting, and diarrhea. Symptoms such as hair loss or skin burns may appear in weeks. For more information about the health effects of radiation, see <a href="http://emergency.cdc.gov/radiation/healtheffects.asp">http://emergency.cdc.gov/radiation/healtheffects.asp</a> For more information about medical treatment of radiation exposure, see <a href="http://emergency.cdc.gov/radiation/countermeasures.asp">http://emergency.cdc.gov/radiation/countermeasures.asp</a></p>
3	<p><b>Category 3</b> means that radiation doses are becoming high enough where we may expect increased risk of cancer in the years ahead for people who are exposed. Leukemia and thyroid cancers can appear in as few as 5 years after exposure. Other types of cancer can take decades to develop (<math>\geq 2</math> rem and <math>&lt; 100</math> rem).</p> <p>Studies have shown that radiation exposure can increase the risk of people developing cancer. This increased risk of cancer is typically a fraction of one percent. The lifetime risk of cancer for the population due to natural causes is approximately 40%. The increase in risk of cancer from radiation depends on the amount (or dose) of radiation, and it becomes vanishingly small and near zero at low doses of radiation. For more information, see <a href="http://emergency.cdc.gov/radiation/cancer.asp">http://emergency.cdc.gov/radiation/cancer.asp</a></p>
2	<p><b>Category 2</b> means that radiation levels in the environment are higher than the natural background radiation for that geographic area. However, these radiation levels are still too low to observe any health effects (<math>\geq 0.001</math> rem and <math>&lt; 2</math> rem).</p> <p>When radiation levels are higher than what we normally have in our natural environment, it does not necessarily mean that it will cause us harm. For more information about health effects of radiation, see <a href="http://www.cdc.gov/nceh/radiation/health.html">http://www.cdc.gov/nceh/radiation/health.html</a></p>
1	<p><b>Category 1</b> means that radiation levels in the environment are within the range of natural background radiation for that geographic area (<math>&lt; 0.001</math> rem).</p> <p>Low amounts of radioactive materials exist naturally in our environment, food, air, water, and consequently in our bodies. We are also exposed to radiation from space that reaches the surface of the Earth. These conditions are natural, and this radiation is called the natural background radiation. For more information about radiation and radioactivity in everyday life and how it can vary by location, see <a href="http://www.cdc.gov/nceh/radiation/sources.html">http://www.cdc.gov/nceh/radiation/sources.html</a></p>