JIM GIBBONS
Governor

STATE OF NEVADA

ALLEN BIAGGI
Director

TRACY TAYLOR, P.E.
State Engineer

DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES
DIVISION OF WATER RESOURCES
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(In Nevada Only)
http://water.nv.gov

January 29, 2010

The Honorable Geno Martini, Mayor
City of Sparks
431 Prater Way
Sparks, NV 89431

RE: REVISED CITY OF SPARKS COMMUNITY ASSISTANCE VISIT REPORT

Dear Mayor Martini:

Enclosed is a Revised Community Assistance Visit (CAV) Report for the City of Sparks. Upon review by FEMA Region IX staff, the version of the CAV Report that was forwarded to you with cover letter dated December 14, 2009, was found by FEMA to be deficient in Section 7 entitled Community Actions Needed.

Specifically, FEMA requires that the City of Sparks actively address several structures, located primarily in the Sparks Industrial Area, which represent violations of building requirements in the City's floodplain management ordinance for structures located in Special Flood Hazard Areas. Section 7 of the Revised CAV Report requires that the County submit deliverables and a progress report within 90 days of the date of this letter. This progress report may be in the form of a letter or an email to myself with copy sent to Sarah Owen, FEMA Region IX.

Please be advised that failure to correct identified violations of the City of Sparks floodplain management ordinance will prevent the City's eligibility for flood insurance premium discounts through participation in FEMA's Community Rating System (CRS) and could result in probation or suspension by FEMA from the National Flood Insurance Program.

Thank you for the opportunity to meet with Floodplain Administrator, Shawn Gooch; Building Official, Mark Meranda; Civil Engineer, Engineering, Richard Brooks; Civil Engineer, Public Works, John Martini; and Director of Community Development, Neil Krutz. Also, thank you for the City's cooperation with the Nevada

Floodplain Management Program during the CAV process. If you have any questions about the report please contact me at (775) 684-2884 or groenewd@water.nv.gov.

Yours truly,

Kim Groenewold
Floodplain Management Program

Enclosure

cc: Shawn Gooch, Sparks Floodplain Administrator
Mark Meranda, Sparks Building Official
Richard Brooks, Civil Engineer, Engineering
John Martini, Civil Engineer, Public Works
Neil Krutz, Director of Community Development
Sarah Owen, FEMA Region IX

FEDERAL EMERGENCY MANAGEMENT AGENCY
COMMUNITY ASSISTANCE VISIT REPORT

SECTION I

1. NAME OF COMMUNITY	2. STATE	3. COMMUNITY ID NUMBER	4. COUNTY
City of Sparks	Nevada	320021	Washoe

5. VISIT CONDUCTED BY	6. AGENCY	7. DATE OF VISIT
Kim Groenewold, Sarah Owen	Nevada Division of Water Resources & FEMA IX	April 29, 2009

SECTION II

8. NAME OF LOCAL OFFICIAL	9. TELEPHONE NUMBER
Shawn Gooch, Flood Control Manager	(775) 353-7824

10. ADDRESS OF LOCAL OFFICIAL
Cityworks, 431 Prater Way, Sparks, Nevada 89432-0857

SECTION III – FINDINGS

PART A

QUESTIONS – Select appropriate response	RESPONSE		
	Serious	Minor	None
1. Are there problems with the community's floodplain management regulations?		X	
2. Are there problems with the community's administrative/enforcement procedures?		X	
3. Are there engineering or other problems with the maps or Flood Insurance Study?		X	
4. Are there any other problems in the community's floodplain management program?			X
5. Are there problems with the Biennial Report data?	____ YES	__X__ NO	
6. Are there any programmatic issues or problems identified?	____ YES	__X__ NO	

7. Are there any potential violations of the community's floodplain management regulations?

__X__ A potential violation or violations has/have been identified.

_____ No violations have been identified.

__X__ Actions are being taken on the part of the community to remedy the violation(s) identified during the CAV.

SECTION III – FINDINGS (continued)

PART B - Narrative

1. Background

The City of Sparks, Nevada was incorporated on March 15, 1905. It is located in southern Washoe County in west-central Nevada. Sparks lies north and east of the City of Reno and approximately 30 miles north of the state capitol of Carson City. With an average elevation of 4,420 feet, Sparks is located at the base of the Sierra Nevada range on the western margin of the Great Basin geographic province. The City of Sparks occupies approximately 35 square miles and had an estimated population of 91,648 in 2008 (Nevada State Demographer).

The principal sources of flooding in Sparks are the Truckee River and the North Truckee Drain. The Truckee River flows from west to east through the southern part of the City and the most damaging floods on the Truckee River have occurred due to warm, heavy rain on either frozen ground or heavy snowpack. The area can also flood as a result of large runoff from spring snowmelt, as well as flash flooding due to summer thunderstorms, primarily from July through October. Localized flooding on small drainages has occurred in the Sun Valley area of the City to the northwest as well as in the Spanish Springs area to the north east

Currently, there are 387 flood insurance policies in force in the City of Sparks for a total coverage of $149,370,200. Historically there have been 166 paid losses totaling $17,630,006 in Sparks and 23 repetitive loss buildings. Sparks does not currently participate in the Community Rating System.

2. Floodplain Management Regulations

The community floodplain management ordinance is contained in Title 15, Chapter 11 – Floodplain Management, of the City of Sparks Municipal Code. The current Sparks floodplain management ordinance was approved and adopted on December 26, 1995 and became effective on the same date. An ordinance review conducted in conjunction with this CAV indicated that a definition of the framework for administering the ordinance (permitting system) was missing as well as language requiring limiting increases of base flood elevations no more than one foot where a regulatory floodway has not been established. The City has delivered to the Nevada Floodplain Management Program draft revisions to the City of Sparks municipal code to rectify these omissions and is proceeding with adoption of the revisions.

3. Administrative and Enforcement Procedures

Sparks' floodplain management ordinance identifies the Public Works Director or his designee as the local floodplain administrator responsible for implementing the City's floodplain management ordinance. Currently the Flood Control Manager within the Public Works Department is designated to act as the Sparks floodplain administrator responsible for review of all proposed development in Special Flood Hazard Area.

Proposed new development in the City of Sparks requires a building permit, special use permit or development permit. All permit applications are initially reviewed by a Civil

Engineer II within the Engineering Section of the Community Development Department for determination whether a proposed development is located in a Special Flood Hazard Area. New development proposed within a Special Flood Hazard Area requires a separate Floodplain/Floodway Development permit. The Floodplain/Floodway Development permit includes a comprehensive checklist of project information required to be submitted by the permit applicant and used to determine compliance with the city's floodplain management ordinance, including plans, values of existing structure and proposed improvement, location, dimensions, elevations, existing or proposed structures, fill, storage of materials, and drainage facilities. The City employs "Permits Plus" software which facilitates permit reviews by different City departments.

For routine Floodplain/Floodway Development applications, permits are processed by the Community Development Department Civil Engineer II in the Engineering Section. For projects requiring additional review and consideration, the Community Development Department includes review by the Flood Control Manager in the Public Works Department. The Community Development Department Engineer II works together with the Flood Control Manager to ensure that development in Sparks occurs in compliance with the City's floodplain management ordinance.

The City utilizes Elevation Certificates to maintain records of finished floor elevations, base flood elevations and flood venting information and requires flood proofing certificates when applicable for non-residential structures. A final, as-built Elevation Certificate is required prior to issuance of a Certificate of Occupancy. The City staff utilizes its GIS capabilities to verify flood zone determinations as well as highest adjacent grade and base flood elevations.

Public Works staff conducts reviews for Substantial Improvement for all permit applications for new construction in Special Flood Hazard Area. If proposed construction approaches 50% of the market value of the structure, the City requires the applicant to provide an appraisal to establish whether the Substantial Improvement criteria would be triggered.

A drive of the Special Flood Hazard Areas prior to the CAV meeting was conducted to review the status of structures identified in the 2004 CAV as having outstanding potential compliance issues, as well as to monitor new development in floodplains since the last CAV. Current and recent development occurring within the City of Sparks has been compliant with the city's floodplain management ordinance. Effective administrative procedures are in place to identify development in Special Flood Hazard Areas and to ensure that building and development are compliant. The only identified compliance problems within City of Sparks are related to past floodplain management practices and were from potential violations or questions identified in the previous two CAVs conducted in 1998 and 2004.

During the 1998 CAV, 67 properties were identified as potential violations or requiring additional information to determine compliance. Building permit, elevation certificate, flood proofing certificate, and other information were provided by the City prior to and after the CAV meeting and of the 67 properties seven remain with outstanding compliance issues. The following discussion describes the seven properties.

2255 Larkin Circle

Two elevation certificates were submitted for the Paclease Truck Rental non-residential buildings at 2255 Larkin Circle. Information provided by the City indicated that the original construction on the site was permitted in October 1989 and that all were post-FIRM construction. The original building was built with its lowest floor 2.1 feet below base flood elevation according to the elevation certificate dated June 3, 1999.

The property is located in what is considered to be the East Sparks Industrial Park. At the time of permitting, City staff contended that the building was flood proofed by virtue of protection from a dike surrounding the area. A letter dated April 12, 1985 from the City of Sparks Public Works Director states that all building construction within the East Sparks Industrial park would be considered flood proofed to an elevation of 4,391 feet due to the presence of the dike. A Letter of Map Revision was not submitted for the dike, however, and the properties in the area continued to be shown on the community FIRMs as located within Zone AE, with a portion of the property in regulatory floodway.

In 2006, additional garage bays and an office building were added to the structure at 2255 Larkin Circle. An analysis of Substantial Improvement was conducted at that time and it was determined that the addition did not exceed the 50% criteria for Substantial Improvement. An elevation certificate submitted for the addition indicates that the elevation of new garage bays were 2.6 feet below base flood elevation.

The original structure represents a violation of floodplain management regulations because the community allowed the lowest floor to be constructed below base flood elevation in a Special Flood Hazard Area. Since it is a non-residential structure, flood proofing to the base flood elevation would have been allowable, however the FEMA regulations concerning flood proofing of nonresidential structures found in 44 CFR 60.3 (c) (3) and (4) require:

- "Together with attendant utility and sanitary facilities, (the non-residential structure) be designed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy;
- Review of structural design, specifications, and plans for construction by a registered professional engineer or architect;
- Community must keep on file a record of certification (including signature and valid stamp of licensure) by the registered professional engineer or architect in the form of a flood proofing certificate."

Flood proofing certification for non-residential structures must pertain to the design associated with the building itself and not related to a minor flood control project such as the dike protecting the area. Consequently the April 12, 1985 letter from the City of Sparks Public Works Director was inadequate documentation of proper flood proofing of the structures at 2255 Larkin Circle.

593 Overmyer Road

An elevation certificate was provided by the City for the structure at 593 Overmyer Road which indicates that the lowest floor elevation was finished at 1.9 feet below the base

flood elevation. Information provided by the City indicates that the building permit was issued in July 1990 and that this is a post-FIRM structure. The structure represents a violation of floodplain management regulations because the community allowed the lowest floor to be constructed below base flood elevation. If the structure has been flood proofed to the base flood elevation, the community must obtain and maintain proper flood proofing certification for this structure that bears the valid seal and signature of a qualified, licensed Professional Engineer or Architect and attests to flood proofing design and measures associated with the structure itself.

915 Bergin Way

An elevation certificate was provided by the City for the structure at 915 Bergin Way which indicates that the lowest floor elevation was finished at 3.3 feet below the base flood elevation. Information provided by the City indicates that the building permit was issued in November 1992 and that this is a post-FIRM structure. The structure represents a violation of floodplain management regulations because the community allowed the lowest floor to be constructed below base flood elevation. If the structure has been flood proofed to the base flood elevation, the community must obtain and maintain flood proofing certification for this structure that bears the valid seal and signature of a qualified, licensed Professional Engineer or Architect and attests to flood proofing design and measures associated with the structure itself.

2080 East Greg Street

An elevation certificate was provided by the City for the structure at 2080 East Greg Street which indicates that the lowest floor elevation was finished at 2.2 feet below the base flood elevation. Information provided by the City indicates that the building permit was issued in May 1984 and that this is a post-FIRM structure.

Documentation provided by the City indicates that the structure has been designed and has incorporated measures for flood proofing as an integral part of the building. The community must obtain and maintain proper flood proofing certification for this structure that bears the valid seal and signature of a qualified, licensed Professional Engineer or Architect and attests to flood proofing design and measures associated with the structure itself.

2205 Larkin Circle

An elevation certificate was provided by the City for the structure at 2205 Larkin Circle which indicates that the lowest floor elevation was finished at 1.1 feet below the base flood elevation. Information provided by the City indicates that the building permit was issued sometime between 1989 and 1995 and that this is a post-FIRM structure.

The property is located in what is considered the East Sparks Industrial Park and at the time of permitting, City staff contended that the building was flood by virtue of protection from a dike surrounding the area. A letter dated April 12, 1985 from the City of Sparks Public Works Director states that all building construction within the East Sparks Industrial park would be considered flood proofed to an elevation of 4,391 feet due to the presence of the dike. A Letter of Map Revision was not submitted for the dike, however, and the properties in the area continued to be shown on the community FIRMs as located within Zone AE, with a portion of the property in regulatory floodway.

The structure represents a violation of floodplain management regulations because the community allowed the lowest floor to be constructed below base flood elevation in a Special Flood Hazard Area. As explained above for the structures located at 2255 Larkin Circle, the April 12, 1985 letter from the City of Sparks Public Works Director was inadequate documentation of proper flood proofing of the structure at 2205 Larkin Circle. If the structure has been flood proofed to the base flood elevation, the community must obtain and maintain proper flood proofing certification for this structure that bears the valid seal and signature of a qualified, licensed Professional Engineer or Architect and attests to flood proofing design and measures associated with the structure itself.

2245 Larkin Circle

An elevation certificate was provided by the City for the structure at 2245 Larkin Circle which indicates that the lowest floor elevation was finished at 2.8 feet below the base flood elevation. Information provided by the City indicates that the building permit was issued sometime between 1989 and 1995 and that this is a post-FIRM structure.

The property is located in what is considered the East Sparks Industrial Park and at the time of permitting, City staff contended that the building was flood proofed by virtue of protection from a dike surrounding the area. A letter dated April 12, 1985 from the City of Sparks Public Works Director states that all building construction within the East Sparks Industrial park would be considered flood proofed to an elevation of 4,391 feet due to the presence of the dike. A Letter of Map Revision was not submitted for the dike, however, and the properties in the area continued to be shown on the community FIRMs as located within Zone AE, with a portion of the property in regulatory floodway.

The structure represents a violation of floodplain management regulations because the community allowed the lowest floor to be constructed below base flood elevation in a Special Flood Hazard Area. As explained above for the structures located at 2255 Larkin Circle, the April 12, 1985 letter from the City of Sparks Public Works Director was inadequate documentation of proper flood proofing of the structure at 2245 Larkin Circle. If the structure has been flood proofed to the base flood elevation, the community must obtain and maintain proper flood proofing certification for this structure that bears the valid seal and signature of a qualified, licensed Professional Engineer or Architect and attests to flood proofing design and measures associated with the structure itself.

2272 Larkin Circle

An elevation certificate was provided by the City for the structure at 2272 Larkin Circle which indicates that the lowest floor elevation was finished at 1.6 feet below the base flood elevation. Information provided by the City indicates that the building permit was issued sometime between 1989 and 1995 and that this is a post-FIRM structure.

The property is located in what is considered the East Sparks Industrial Park and at the time of permitting City staff contended that the building was flood proofed by virtue of protection from a dike surrounding the area. A letter dated April 12, 1985 from the City of Sparks Public Works Director states that all building construction within the East Sparks Industrial park would be considered flood proofed to an elevation of 4,391 feet due to the presence of the dike. A Letter of Map Revision was not submitted for the

dike, however, and the properties in the area continued to be shown on the community FIRMs as located within Zone AE, with a portion of the property in regulatory floodway.

The structure represents a violation of floodplain management regulations because the community allowed the lowest floor to be constructed below base flood elevation in a Special Flood Hazard Area. As explained above for the structures located at 2255 Larkin Circle, the April 12, 1985 letter from the City of Sparks Public Works Director was inadequate documentation of proper flood proofing of the structure at 2245 Larkin Circle. If the structure has been flood proofed to the base flood elevation, the community must obtain and maintain proper flood proofing certification for this structure that bears the valid seal and signature of a qualified, licensed Professional Engineer or Architect and attests to flood proofing design and measures associated with the structure itself.

4. Maps and Flood Insurance Study

The initial Flood Hazard Boundary Map for City of Sparks was dated June 27, 1975. The first Flood Insurance Study (FIS) and Flood Insurance Rate Map (FIRM) for Sparks were effective on December 1, 1983. A revision of the FIRMs for Sparks was published when flood hazard data for the City was incorporated into the first countywide FIRM for Washoe County on April 16, 1990.

The current FIRM and FIS for Sparks are part of the countywide Digital Flood Insurance Rate Map (DFIRM) and accompanying FIS for Washoe County that became effective on March 16, 2009. The City of Sparks incorporates "auto-adoption" language in its floodplain management ordinance and as such the DFIRM and FIS were automatically adopted on their effective dates. The current version of the Community Status Book Report indicates that the City's Pre-/Post FIRM date is December 1, 1983 coinciding with the release of the first FIRM for Sparks.

The City of Sparks is covered by seventeen Digital Flood Insurance Rate Map (DFIRM) panels were published for Washoe County with the March 16, 2009 DFIRM release. The DFIRMs for City of Sparks include flood zones A, AH, AO, AE, and regulatory floodways. The sources of flooding include the Truckee River, North Truckee Drain, and Spanish Springs Creek.

During the CAV meeting the City of Sparks staff expressed an interest in having FEMA reflect LOMR-F data on subsequent revisions of the FIRM panels. In particular, when DFIRM panels were published for Washoe County did not reflect a Letter of Map Revision based on Fill (LOMR-F) for Pioneer Meadows Village, LOMR-F 07-09-1258A that had been approved June 28, 2007. Residents in the subdivision were reporting that they received letters from their lenders requiring them to purchase flood insurance. Further investigation indicated that the LOMR-F was not incorporated into the new DFIRM and had not been revalidated in the Summary of Map Actions. The LOMR-F was reissued as LOMR-F 09-09-2495A on September 17, 2009.

City staff also expressed concern regarding the DFIRM mapping around the Sparks Marina, an area that has undergone several map revisions. The March 16, 2009 mapping indicates that several properties on Harbour Cove Court were included in Zone AE associated with the Sparks Marina but had highest adjacent grades well above published base flood elevations. The City became aware of the mapping issue related to the March 16, 2009 map release when affected property owners reported receiving

letters from their lenders requiring them to purchase flood insurance. The City is assisting the property owners with pursing Letters of Map Amendment to address the flood insurance requirement.

5. Other Problems

The City of Sparks has expressed an interest in participating in the Community Rating System (CRS) and the City's current floodplain management practices and procedures should provide eligibility for significant credit under CRS. However the identified violations at the Sparks Industrial Area must be mitigated as a prerequisite to entry into CRS. The Sparks Industrial Area is one of the primary targets for future flood mitigation through the regional Truckee River Flood Project and flood protection in the form of flood walls and other improvements are planned. Until such time as actual mitigation measures are constructed, become effective and the Flood Insurance Rate Maps are revised to reflect the changes, the structures in the Sparks Industrial Area cited in this report remain an outstanding compliance issue.

6. Follow-up Required by NDWR Staff

A. Provide flood proofing technical standards (FEMA-102) and example of flood proofing certificate.

7. Community Actions Needed

A. Submit a remedial action plan to NDWR within 90 days which describes actions that will be taken to correct violations identified in this CAV report along with the status of such actions. Structures and attendant utilities identified as violations must be brought into compliance with lowest floor and flood venting requirements.

SECTION IV – List of Attendees

City of Sparks

Shawn Gooch, Sparks Floodplain Administrator
Mark Meranda, Sparks Building Official
Richard Brooks, Civil Engineer, Engineering
John Martini, Civil Engineer, Public Works
Neil Krutz, Director of Community Development

State of Nevada

Kim Groenewold, State NFIP Coordinator

FEMA Region IX

Sarah Owen, Natural Hazard Program Specialist