

# Charles R. Dettling, P.E.

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## SUMMARY OF QUALIFICATIONS:

Over 18 years of experience in hydrological and hydraulic (H&H) modeling experience, specializing in drainage and storm water systems, surface water hydrology, urban hydrology, FEMA flood plain analysis, erosion control, water quality monitoring, and wetland delineation. Served as project manager or lead H&H analyst on numerous public works, residential improvement, mining, and urban hydrology projects. Responsibilities include project management, site grading, storm and sanitary sewer design and analysis, floodplain analysis, hydrologic analysis, hydraulic analysis, Hydrologic Engineering Center (HEC) models. Proficient in other modeling and support software such as: Autodesk Storm and Sanitary Analysis, Civil 3D, EPA SWMM, GIS/AutoCAD mapping/drafting, TR-20, and TR-55. Additional areas of experience encompass the regulatory aspects of water resources and experience in the application of National Environmental Policy Act, Clean Water Act, Section 404, and other related Federal and State water-related planning.

## BACKGROUND:

- Project Management
- Civil Design
- Staff Hydrologist
- GIS/Civil 3D Mapping
- Water System Administrator
- Utility Layout/Design
- Site Layout/Design
- Report Preparation
- Residential Development
- Commercial Development

## WORK EXPERIENCE:

*March 2020 – Present – JK Architecture Engineering – Sparks, NV*

### **Civil Engineer/Project Manager**

- **Lompa Ranch Letter of Map Revision**  
A detailed flood study was conducted on behalf of the Ryder Homes to remove the floodplain in order to construct 500+ single family and multi-family residences.
- **Lompa Ranch Residential and Multifamily Projects**  
Responsible for the site development, hydrologic analysis and utility design for the 189 single-family development and the 372 total units multi-family development.
- **Town of Mammoth Lakes – The Parcel**  
Responsible for the off- and on-site hydrologic analysis for the proposed multi-family development. The analysis included a HEC-RAS model to determine base flood elevations and the use of the Rational Methods to facilitate the design of all storm control structures and detention facilities.

*March 2016 – March 2020 – Odyssey Engineering – Sparks, NV*

### **Civil Engineer/Project Manager**

- **Di Loreto Letter of Map Revision**  
A detailed flood study was conducted on behalf of the Di Loreto Family residence to remove the residence FEMA flood zone.
- **Galleria Square Townhomes**  
Project Manager for the civil design improvements for a 32-townhome residential development.
- **Washoe County School District –Sun Valley Middle School**  
Responsible for the off- and on-site hydrologic analysis for Sun Valley Middle School. The analysis included both the use of TR-55 SCS Curve Number and Rational Methods to facilitate the design of all storm control structures and detention facilities.

*March 2014 – March 2016 – Manhard Consulting - Reno, NV*

**Project Designer/Hydrologist**

- **D'Andrea Ranch – Vicenza, Bolzano, Cortina, & Merano Hydrology, Sparks, Nevada**  
Completed a hydrologic analysis for four residential villages. The analysis determined the on- and off-site hydrology while employing HEC-1, Rational Method and SSA modeling.
- **City of Reno - Virginia Lake Water Quality Project, Reno, Nevada**  
Responsible for the design and hydraulic analysis of an alternate outlet structure to improve water circulation in Virginia Lake.
- **Clear Creek – Water Modeling Project, Douglas County, Nevada**  
Performed a hydraulic analysis of the western portion of the existing Douglas County Water System with the incorporation of the proposed Clear Creek water system using WaterGEMS to determine efficacy of the existing pump stations and tanks.
- **Sierra Springs Dam J-229**  
Performed a Dam Breach Analysis using HEC-RAS and Civil 3D to determine the downstream inundation associated with a catastrophic failure of the existing structure.

*September 2004 – March 2014 - Summit Engineering - Reno, NV*

**Project Manager/Hydrologist**

- **D'Andrea Ranch Phase III Master Hydrology, Sparks, Nevada**  
Completed the Master Hydrology Analysis for 11 separate villages totaling 546 single family homes. The analysis determined the on- and off-site hydrology while employing HEC-1, Rational Method and StormCAD modeling for the associated report.
- **Eureka Canyon Subdivisions**  
Responsible for the Master Hydrology for Eureka Canyon, which consisted of 277 single-family residential units. The analysis included both the use of the HEC-1 and Rational methods to facilitate the design of all on-site storm control structures.
- **City of Sparks – Oddie Boulevard Storm Sewer Study**  
Performed a Hydrologic/Hydraulic study on approximately 400 acres of an existing storm drain network in Sparks, Nevada, where localized flooding repeatedly occurs.
- **Lander County – Austin, Nevada FEMA Flood Study**  
Managed and conducted a floodplain model for Pony Canyon (Austin, Nevada) that was approved and became effective December 29, 2010. The Pony Canyon Floodplain Model used a HEC-1 model to estimate regulatory peak flows. HEC-RAS with an EPA SWMM model was used to determine the boundary water surface elevations for the regulatory events based on the existing civil improvements.

*August 2003 – September 2004 - JBR Environmental Consultants - Reno, NV*

**Environmental Analyst**

*July 2001 – July 2003 - University of Nevada, Reno - Reno, NV*

**Teaching/Research Assistant**

**EDUCATION:**

B.S. Environmental and Natural Resource Science, 2000 - University of Nevada, Reno

M.S. Hydrology, 2003 - University of Nevada, Reno

**PROFESSIONAL REGISTRATION:**

Professional Engineer (Nevada) #25761

Professional Engineer (Washington) #56241

Certified Water Systems Operator Grade D-1 (#5855)

*Rodd Lighthouse*



May 14, 2022

To Whom It May Concern:

I am writing this letter in support of Charlie Dettling's desire to serve as an advisor on the Washoe County Wildlife Management Advisory Board, as well as recommend Mr. Dettling for one of the available sportsman seats on the board.

While attending the University of Nevada in 1985, I met Charlie on a bow hunt in northern Washoe County. There was a party of six hunters, and I hunted with Charlie and his nephew. Although we did not harvest a deer, we saw a lot of animals, performed a memorable stalk and had a great hunt. Although I lost touch with Charlie after the hunt, I always remembered that hunting trip. Fast forward 20 years, Mr. Dettling and I were employed at the same engineering firm. After reconnecting, plans were made to go deer hunting again.

Since reconnecting in 2005, Charlie and I have become good friends and have gotten to know each other quite well. What I know about Charlie is that he loves his family, friends, and animals (especially his hunting dog); he is passionate about the outdoors, wildlife, hunting and fishing; and he is intelligent, honest, trustworthy, loyal, compassionate, kind and caring. Based on my hunting experiences with Charlie, I know that he has a soft heart for wildlife and that it is not so important to harvest an animal as it is to enjoy the hunting experience. I also know that Charlie is very ethical and has high moral standards.

Based on Charlie's passion for the outdoors, wildlife, hunting and fishing; his admirable personality traits; and his ethical and moral standards, it is my opinion that Charlie is well suited to represent the sportsmen of Washoe County. I trust Charlie in the capacity of a wildlife management advisor to listen to and consider the opinions wildlife experts and to be able to make difficult decisions that represent the sportsmen of Washoe County, as well as conserving wildlife for future generations to enjoy.

Rodd Lighthouse, P.E.

A handwritten signature in blue ink, appearing to read "Rodd Lighthouse".

Supervising Engineer  
Nevada Department of Wildlife

