

# United States Department of the Interior NATIONAL PARK SERVICE

INTERMOUNTAIN REGION 12795 West Alameda Parkway Post Office Box 25287 Denver, Colorado 80225-0287



February 22, 2012

Mr. Rod Tarullo Director City of Golden Parks and Recreation 1470 10<sup>th</sup> Street Golden, CO 80401

#### Dear Rod:

As a landowner associated with the Golden fossil areas that were designated as additions to the Morrison-Golden Fossil Areas National Natural Landmark (NNL) in June 2011, I want to cordially welcome you to the NNL Program. Also I want to provide you with a welcome packet to ensure you have a copy of the pertinent information regarding the NNL Program and your NNL site.

Please find enclosed a folder containing the following items:

- The Final Evaluation Report for the Golden Fossil Areas (March 2011), including an August 2011 Amendment finalizing the boundaries for the newly designated areas.
- The Landmark Brief for the full Morrison-Golden Fossil Areas NNL. This one-page document is a standard product produced by the NNL Program that summarizes the site's resources and provides a consolidated significance statement.
- The official Boundary Maps for the NNL. Given the non-contiguous nature of this site, the NNL is represented by an overall map and three accompanying maps that provide a more detailed look at the different tracts comprising the NNL.
- The Department of Interior Press Release announcing six new NNL designations (including the Morrison-Golden Fossil Areas).
- A color NNL Program Brochure.
- A CD containing an electronic version of the above documents and including the GIS data for the NNL boundaries.

As a regional coordinator for the NNL program, my roles are to provide service to landmark owners in support of conservation goals (which may include technical assistance, participation in work groups, reviewing and commenting on management plans, cooperatively seeking funding for projects, providing information) and to report on the condition of sites over time. Thus, I hope to maintain contact with NNL landowners/managers roughly every two or three years, or more frequently as needs arise. Regular contact allows me to stay apprised of the condition of the significant resources and to help identify if there are ways the NPS can support landowner's conservation efforts.



## U.S. Department of the Interior National Park Service National Natural Landmarks Program



Name:

Morrison-Golden Fossil Areas

Location:

Jefferson County, Colorado

## Description:

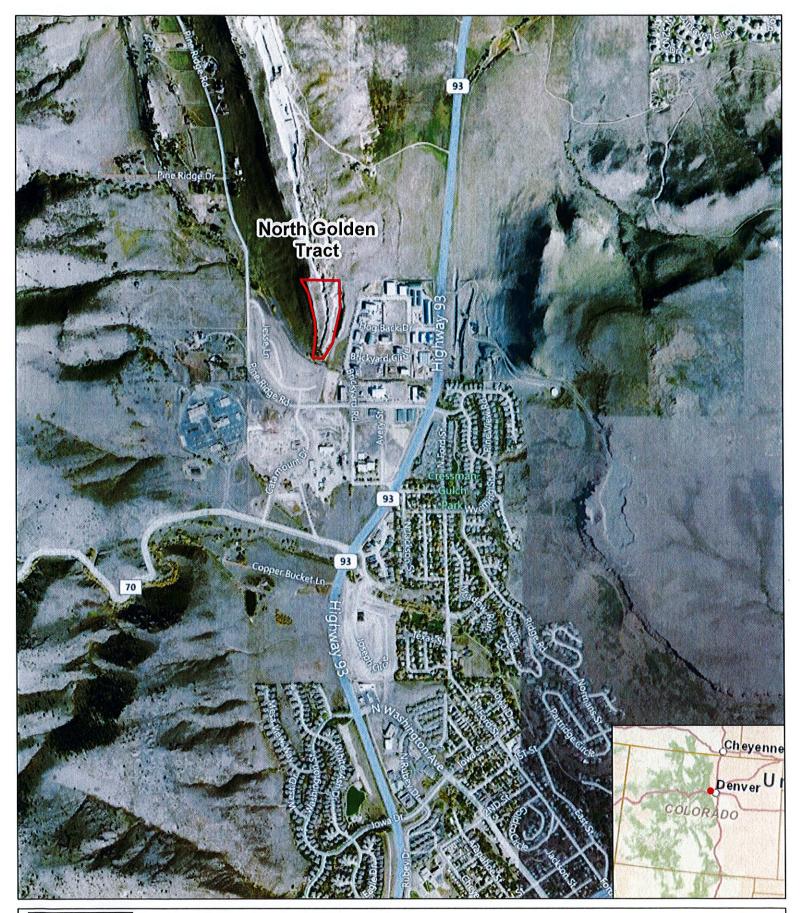
The Morrison-Golden Fossil Areas, situated amid spectacular geological landscapes, consist of five tracts located in and around Morrison and Golden, Colorado. Two tracts were designated the Morrison Fossil Area NNL in 1973, and three tracts in the Golden Fossil Area (North Golden, Triceratops Trail and School of Mines tracts) were designated in 2011 as an addition to create the Morrison-Golden Fossil Areas NNL.

The Morrison Fossil Area was the first major site of the discovery of giant dinosaur fossil bones in North America in the late 1800's, revealing the first quarries ever to produce iconic Jurassic dinosaurs including Stegosaurus, Apatosaurus and Allosaurus, as well as the crocodile Goniopholis. The best known mid-Cretaceous iguanodontid (Carirchnium) and 'ostrich' (Magnoavipes) dinosaur tracks in the western US are also found at this site, which gave rise to the now globally-recognized concept of the Dinosaur Freeway. The Morrison Fossil Area represents the scientific history of dinosaur bone and track research from 150 to 100 million years ago. The Morrison Formation, colorful variegated maroon, brown, and gray shales and sandstones, is exposed in hogbacks approximately 300 feet high. The 10-acre quarry site in the landmark's southern tract is located adjacent to the northern city limits of Morrison. The 50-acre northern tract is located approximately one-half mile north of Morrison.

The North Golden 'Early Bird' tract reveals the first fossil bird footprints (Ignotornis) ever discovered and formally named from the Mesozoic 'age of dinosaurs' and the only outcroppings of the Golden Fault, a major Front Range geological feature. The other two Golden tracts reveal the first tracks ever discovered and formally named of horned dinosaurs (Ceratopsipes), champsosaurs (Champsosaurichnus) and Cretaceous mammals (Schadipes) and an abundance of plant fossils. These sites continue the story of the Mesozoic Era from where it left off, 100 million years ago in the Morrison Fossil Area, through to the end of the age of dinosaurs in Golden, 65 million years ago.

### Significance:

The Morrison-Golden Fossil Areas provide a trail through time for the late Jurassic and Cretaceous Periods that is unparalleled in the western US and unique globally. The sites reveal dinosaur and crocodile bones (four species new to science), bird, dinosaur and other reptile tracks (six species new to science), plant fossils and many other fossil and geological features. These visually-spectacular features are enhanced by the world famous history of the Morrison Formation dinosaurs and the equally world-renowned, and scientifically-named, fossil footprints from three of the five tracts.





**MORRISON-GOLDEN FOSSIL AREAS** NATIONAL NATURAL LANDMARK Tract 1 of 5

Landmark Boundary Revised 2011

Map Produced October 2011 by National Park Service Intermountain Region Geographic Resources Program