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Executive Summary - Certificate of Designation Application — Denver Zoo Waste-to-Energy System; Submitted by Denver Zoological Foundation, Inc., as Applicant

Introduction

This information in this packet has been assembled for the Certificate of Designation (CD) for solid waste handling at Denver Zoo. The solid waste handling at the zoo is part of an innovative waste to energy system which will help manage the zoo's diverse waste stream, and will also generate a significant portion of the energy needs for the zoo's campus.

The CD permit is focused on the siting, permitting, and regulation of solid waste disposal sites and facilities. This application and the Engineering Design and Operations Plan (EDOP) provide details about how the site will be constructed, what equipment will be used in the process, how it will be maintained and operated, indicates what waste materials will be accepted, and places financial assurance to manage shutdown and decommissioning of the facility. The application documents have been reviewed, commented on, and as necessary approved by the Colorado Department of Public Health and Environment (CDPHE) and several departments of the City and County of Denver with leadership from the Department of Environmental Health and Parks & Recreation.

For reference, the last CD application that was reviewed and approved by Denver City Council was Denver International Airport CD September 5, 2000. Ordinance #696 Council Bill 652

Public process

Denver Zoo has been sharing the story of the planned waste to energy system publicly for several years. The Zoo has used far-reaching communication channels including a member publication reaching \$65,000 area households, the zoo website, e-newsletter and through other large scale public events in the community. In addition to this large scale outreach, the zoo entered a formal public outreach process as part of our permitting process in August 2013. The following outreach methods were used to reach key stakeholders:

- Denver Zoo leadership presented to the Parks & Recreation Committee of the Inter-Neighborhood Cooperation (INC) in August and that group later formally voted to support the project.
- On Sept. 24, Denver Zoo hosted its first open house inviting leadership from Registered Neighborhood Organizations with 23 invited and seven attendees
- On Sept. 25 Denver Zoo hosted an open house with the Denver Parks and Recreation Advisory Board (DPRAB). This open house included a tour and presentation of the building.
- On Oct. 9 the zoo held another open house. Invitees included membership of area RNO's and the zoo's 65,000 email database. Sixty-five people attended the meeting featuring a presentation and question and answer session.
- On Oct. 10 Denver Zoo presented at the DPRAB regular meeting in the Webb Building.
- On Nov. 14 DPRAB hosted a formal public hearing with Denver Zoo. No one spoke in opposition of the project and DPRAB recommended approval of the permit to the Denver Parks & Recreation Manager.





Operations

The proposed solid waste handling will occur at the Zoo's Waste Management Building (approximate footprint 4,773 square feet), where Zoo waste will be received, mixed and consolidated to create renewable energy. The waste stream of the zoo is not changing, and the Zoo has formally received and handled waste at this same location within the zoo for over 30 years.

The operations of the waste to energy system has been designed with the utmost care and concerned for safety and consideration of the unique context within the zoo and City Park. Noise and odors from the system will be strictly controlled, and it is not expected that there will be adverse impacts. However, there are operational procedures in the EDOP that guide specific levels, outline communication channels for any perceived nuisance, and create corrective actions to mitigate operational impacts.

Contents

Engineering Design and Operations Plan (EDOP) – the design and operations plan that the facility will follow

Appendix A Cooperative Agreement between DZF and the City – Cooperative operating agreement between City and County of Denver and Denver Zoological Foundation.

Appendix B Zoning Approval Letter – Approval letter from City Parks and Recreation Manger for waste to energy facility as currently zoned.

Appendix C Environmental Baseline Data – Current operational data regarding noise and smell at current proposed location for future comparison.

Appendix D Other Permits – Any associated permits that the Denver Zoological Foundation currently or will operate under.

Appendix E Closure Plan (Financial Assurance Document) – Financial evaluation and protection to decommission facility if necessary

Appendix F CDPHE Review Letter on EDOP – CDPHE evaluation summary letter recommending approval with conditions.

Appendix G Neighborhood/Stakeholder Meeting Summary – Summary of meetings that have occurred with the local communities and stakeholders to address questions and concerns.

Appendix H DZF's Regulated Waste Map for Denver Zoo - Map of areas containing state and federal regulated wastes

Appendix I Siting Analysis (will be completed and submitted at a later date (associated with air permit)) - Evaluation and assessment of air pollution control alternatives and environmental impacts for site required by 40 CFR 60 – Other Solid Waste Incineration Units.

Appendix J Safety/Material Assessments (reserved for use at a later date – under evaluation currently) – Assessment reports on waste, handling, and safe operation of equipment and facility.





Appendix K Waste Acceptance – Approval Documents – Process to approve waste acceptance at facility from outside sources/suppliers.

Appendix L Facility Start-Up Description and Schedule – Schedule and Start-up description- Large schedule can be seen on last page of facility drawing set.

