

STAFF REPORT
January 5, 2017

No. 16CA007 - Amendment to the Comprehensive Plan to adopt the Box Elder Drainage Basin Design Plan **ITEM 3**

GENERAL INFORMATION:

APPLICANT/AGENT	City of Rapid City
REQUEST	No. 16CA007 - Amendment to the Comprehensive Plan to adopt the Box Elder Drainage Basin Design Plan
LEGAL DESCRIPTION	The area defined in approximate description as follows: the E1/2 and SW1/4 of Section 1 (Meade County); S1/2S1/2SE1/4 of Section 2 (Meade County); E1/2SW1/4 and SE1/4 of Section 10 (Meade and Pennington); Section 11 excluding the NW1/4 north of Boxelder Creek (Meade and Pennington); Section 12 (Meade and Pennington); Section 13 (Pennington); Section 14 (Pennington); Section 15 excluding the NW1/4NW1/4 (Pennington); N1/2N1/2, SE1/4NE1/4 of Section 22 (Pennington); N1/2 and SW1/4 of Section 23 (Pennington); Section 24 excluding the S1/2SW1/4 (Pennington); and the NE1/4NE1/4 of Section 25 (Pennington), all located in T2N, R7E, BHM, South Dakota; and SW1/4 of Section 5 south of Boxelder Creek (Meade County); NW1/4 and S1/2 of Section 6 south of Boxelder Creek (Meade County); Section 7 (Meade and Pennington); W1/2 and SE1/4 of Section 8 west of Boxelder Creek (Meade and Pennington); SW1/4 of Section 16 west of Boxelder Creek; Section 17 west of Boxelder Creek (Pennington); Section 18 (Pennington); Section 19 (Pennington); Section 20 (Pennington); Section 21 south of Boxelder Creek (Pennington); W1/2 of Section 22 west of Boxelder Creek (Pennington); W1/2 of Section 27 (Pennington); Section 28 (Pennington); Section 29 (Pennington); E1/2, E1/2NW1/4, NW1/4NW1/4, NE1/4SW1/4 of Section 30 (Pennington); NE1/4 of Section 31 (Pennington); N1/2 Section 32; N1/2 and N1/2SE1/4 of Section 33 (Pennington); NW1/4, W1/2NE1/4 and N1/2S1/2 of Section 34 (Pennington), all located in T2N, R8E, BHM, South Dakota.
PARCEL ACREAGE	Approximately 10,740 Acres
LOCATION	Boxelder Creek Watershed located in Pennington County and Meade County
APPLICATION	11/10/16

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REVIEWED BY

Sarah Hanzel / Mary Bosworth

RECOMMENDATION:

Staff recommends that the Amendment to the Comprehensive Plan to adopt the Box Elder Drainage Basin Design Plan as an Amendment to the Comprehensive Plan be approved.

GENERAL COMMENTS: The Public Works Department has submitted this Comprehensive Plan Amendment to adopt the Box Elder Drainage Basin Design Plan (BEDBDP). The BEDBDP encompasses approximately 10,740 acres located within the Box Elder Creek watershed in Pennington and Meade Counties. The objectives of the BEDBDP are to:

- Determine storm flows within the basin for the 2-year, 10-year, and 100-year design storms for existing and fully-developed conditions; and
- Identify Design Plan facilities and recommended locations that result in significant and orderly drainage facility development that reduce the fully-developed predicted storm flows to near existing condition predicted flows; and
- Provide general recommendations for stormwater quality treatments.

In 2009, the City of Rapid City adopted the *Stormwater Quality Manual*, replacing the 1989 *Rapid City Drainage Criteria Manual*. The *Stormwater Quality Manual, 2009 Edition*, provides policies, design procedures and techniques to be used to mitigate the impact from uncontrolled stormwater runoff on urbanized environments and is the basis for planning and designing all stormwater or drainage-related facilities within the City of Rapid City and its extraterritorial jurisdiction.

The *Stormwater Quality Manual (2009 Edition)*, and the *City of Rapid City (CORC) Infrastructure Design Criteria Manual (2012 Edition)* brings Rapid City into compliance with the Environmental Protection Agency in reducing the quantity of pollutants transported in storm sewer systems during storm events to the maximum extent possible, thereby creating compliance with the Stormwater Phase II Final Rule as applied to Municipal Separate Storm Sewer Systems (MS 4's) of urbanized settings in small municipalities, thus satisfying the requirements of the Clean Water Act.

Public Works Department staff has indicated that the BEDBDP was developed by a consultant retained by the City of Rapid City in order to establish a Plan and modeling methodology for Boxelder Creek watershed in accordance with the *Stormwater Quality Manual (2009 Edition)* and the *CORC Infrastructure Design Criteria Manual (2012 Edition)* that reflects hydraulic conditions and incorporates federally mandated stormwater quality improvements.

On October 20, 2016, the City of Rapid City held a public open house to provide information to property owners within the study area. More than two dozen people attended to ask questions about the BEDBDP and visit with City staff and the consultant team.

STAFF REVIEW: The adopted Comprehensive Plan, Plan Rapid City, is a framework with the general purpose of guiding and accomplishing a coordinated, adjusted, and harmonious development of Rapid City, which will, in accordance with existing and future needs, best

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promote health, safety, morals, order, convenience, prosperity or the general welfare, as well as efficiency and economy in the process of development. The comprehensive plan is intended to guide the orderly growth of the community. In order for the plans to remain viable and to keep pace with a changing market place, periodic adjustments to reflect changing conditions will be required.

Staff has reviewed the Comprehensive Plan Amendment to adopt the BEDBDP and has reviewed this proposed Comprehensive Plan Amendment for conformance with the six criteria for review of Comprehensive Plan Amendments established in Section 2.60.160(D). A summary of the findings are outlined below:

1. *Whether the proposed change is consistent with the policies and overall intent of the comprehensive plan.*

Plan Rapid City identifies three goals applicable to the BEDBDP:

Principle TI-1: Planning for the Efficient Provision and Maintenance of Infrastructure. Public infrastructure facilities and services needed to serve the community such as potable water, sanitary sewer, and storm drainage will be provided for, maintained, and expanded efficiently. The City will make efforts to improve the linkage between infrastructure planning and land use planning to ensure that infrastructure is used as a tool to help manage growth, not as a service that is provided in reaction to growth pressures.

Goal TI-1.1: Coordinate the planning, construction and maintenance of utility and transportation infrastructure projects to maximize benefits and efficiency.

Goal TI-1.2: Proactively plan for utility and transportation infrastructure construction, maintenance, and improvements.

Goal TI-A12: Conduct a Box Elder Drainage Basin Study.

The proposed BEDBDP provides analysis for three areas within the watershed referred to as the South, Middle, and North Areas. The proposed Amendment is consistent with Chapter 6 of *Plan Rapid City* by identifying existing and future drainage facilities that are needed to adequately manage stormwater runoff from a basin wide perspective.

2. *Whether the proposed change is warranted by changed conditions within the neighborhood surrounding and including the subject property.*

This is the first comprehensive Drainage Basin Design Plan completed for the Box Elder Creek watershed. The proposed BEDBDP reflects stormwater calculation methodologies based on the *CORC Infrastructure Design Criteria Manual (2012 Edition)* and the *Stormwater Quality Manual (2009 Edition)*, and includes hydraulic conditions and incorporates federally-mandated stormwater quality improvements. These new criteria constitute a substantially changed condition.

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3. *Whether and the extent to which the proposed Amendment is compatible with existing and proposed uses surrounding the subject land.*

The Box Elder Creek watershed includes approximately 10,740 acres located in Pennington and Meade Counties. The properties include existing residential and non-residential land uses and areas available for future development. The proposed BEDBDP will improve capacity and operation of existing storm drainage facilities within the drainage basin as well as identify major drainage routes to be protected as development occurs. These proposed improvements will guide stormwater improvements within the basin to enhance the existing and proposed uses of the surrounding properties.

4. *Whether and the extent to which the proposed Amendment would adversely affect the environment, services, facilities, and transportation.*

The BEDBDP will provide the planning tools when developing the drainage improvement construction plans to improve capacity of the existing drainage channels. Therefore, the proposed Amendment would not appear to result in any significant adverse affects on the environment, services, facilities or transportation network.

5. *Whether and the extent to which the proposed Amendment would result in a logical and orderly development pattern.*

The proposed Amendment will provide the planning tools when developing the drainage improvement construction plans, thus encouraging the preservation and proper utilization of environmental resources by preventing development in areas that are environmentally unsuitable for buildings and by protecting the proposed detention facility expansion from incompatible development. Amending the Comprehensive Plan by adopting the BEDBDP will help improve drainage facilities, resulting in a logical and orderly development pattern.

6. *Whether and the extent to which the proposed Amendment adversely affects any other part of the city, or creates any direct or indirect adverse effects.*

The BEDBDP presents a conceptual design plan for the control of stormwater related problems. Staff has not identified any significant adverse affects that the Comprehensive Plan Amendment would have on the surrounding area or on the City.

Staff is recommending that the Comprehensive Plan Amendment to adopt the Box Elder Drainage Basin Design Plan be approved.