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Part I: General Overview of Business

The mission of the Johnson County Conservation Board (JCCB) is to improve the quality of natural resources and native species.

JCCB reaches out through conservation education and programming, and manages land through restoration and mitigation projects.

Part II: Job Specifics

While water testing in 2014, JCCB measured high levels of phosphorous in the lake at Kent Park. Since then, they have completed biweekly (and post-rain event) surveys of the lake and nearby streams.

Natural resource staff continue to restore and protect prairie and wetland areas in and around Kent Park.

Part III: Introduce the Problem

Why are there high levels of phosphorous and where is the source?
Is the water safe for swimming at the Kent Park Beach?

How do we improve water quality at Kent Park Lake and the surrounding watershed?

Part IV: Background

Students need to have basic knowledge of the watersheds and the phosphorous cycle, common indicators of water quality, and plant identification skills.

In order to solve this problem, JCCB needed staff to conduct water testing and analyze data, access to state water quality standards, and staff with considerable knowledge of restoration strategies.

Part V: Business Solution

JCCB's strategy includes two goals: to monitor water quality and alert others when conditions deteriorate, and to restore natural landscapes that improve water quality, run-off, and nutrient uptake.

Part VI: Student Solutions

After setting up a water monitoring protocol, students strategies may include basic restoration plans, invasive species removal, public outreach for agricultural and consumer practices, or public alerts for beach-goers.