

CHECKLIST ENVIRONMENTAL ASSESSMENT

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| Project Name: Spring Development, Nyquist Lease 8978   | Proposed Implementation Date: Pending |
| Proponent: Peter Nyquist, HC 72-3042, Glasgow MT 59230   |                                       |
| Type and Purpose of Action: Spring development on State land. This project will result in the installation of a water collection box, 36" in diameter and placed 10' deep, as well as the development of a pit reservoir (40'X40'X10') in an unnamed drainage. Approximately 500 feet of 1 1/2" (minimum) pipe will be installed 2 to 4 feet under ground. |                                       |
| Location: EMSE4, S1 T31N R39E  | County: Valley                        |

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I. PROJECT DEVELOPMENT

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| 1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED: Provide a brief chronology of the scoping and ongoing involvement for this project. | MT Department of Natural Resources and Conservation (DNRC) Trust Land Division<br><b>LEGISLATIVE ENVIRONMENTAL POLICY OFFICE</b>   |
| 2. OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED:   | DNRC Trust Land Division. This division has complete authority to grant or deny the improvement<br><br>DNRC Water Resources Division (WRD). This division has authority regarding water rights.  |
| 3. ALTERNATIVES CONSIDERED:   | <b>Action Alternative:</b> Install a water collection box at a springhead. Dig a pit reservoir (40'X40'X8') in the natural drainage to hold water from the spring. Approximately 350' of 1 1/2" PVC pipe will carry water from the collection box to the pit reservoir. The PVC pipe will be buried approximately 2'-4' deep.<br><br><b>NO Action Alternative:</b> The spring will be left as it is with no development. |

II. IMPACTS ON THE PHYSICAL ENVIRONMENT

| RESOURCE   | POTENTIAL IMPACTS  |
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| 4. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:<br>Are fragile, compactable or unstable soils present? Are there unusual geologic features? Are there special reclamation considerations? | Action Alternative:<br>No Action Alternative:<br><br>[Y] <b>Action Alternative:</b> The soil type in this area is mainly a Thoeny-Phillips loam complex with some Elloam & Nishon loam soils present. The soil in the immediate vicinity of the spring development will be permanently disturbed. A hole (36" diameter X 10" deep) will be dug to install a water collection box. Some of the soil from this hole will be permanently displaced. The |

| II. IMPACTS ON THE PHYSICAL ENVIRONMENT  |  |
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|  | <p>reservoir, will also be permanently displaced. Soil from the trenches that will be dug to install the pipeline will be set aside and then replaced when the pipe has been installed.</p> <p>[N] <b>NO Action Alternative:</b> No permanent or temporary soil displacement will occur in this area.</p>  |
| <p>5. WATER QUALITY, QUANTITY AND DISTRIBUTION: Are important surface or groundwater resources present? Is there potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality?</p> | <p>[Y] <b>Action Alternative:</b> The water quantity and quality will be enhanced by this project. The collection box and pit reservoir will create a more reliable year round source of water for livestock and wildlife.</p> <p>[N] <b>NO Action Alternative:</b> Water quality and quantity will not be effected in this area.</p>  |
| <p>6. AIR QUALITY: Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?</p>  | <p>[Y] <b>Action Alternative:</b> Air born dust will be created during the soil excavation portion of the spring development. The impact area will be small and localized.</p> <p>[N] <b>NO Action Alternative:</b> Air quality will not be effected in this area.</p>   |
| <p>7. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetative communities be permanently altered? Are any rare plants or cover types present?</p>  | <p>[Y] <b>Action Alternative:</b> The vegetation in the area will be effected. The area of surface disturbance is small so the vegetation will recover quickly and naturally. According to the last DNRC field evaluation, the vegetation in this general area consists mostly of native grasses, forbs and shrubs with some woody species present.</p> <p>[N] <b>NO Action Alternative:</b> Vegetation in this area will not be effected.</p> |
| <p>8. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by important wildlife, birds or fish?</p>   | <p>[Y] <b>Action Alternative:</b> Fish do not utilize this area, but ungulate wildlife and birds will benefit from increased water availability.</p> <p>[N] <b>NO Action Alternative:</b> Wildlife and birds will not benefit from increased water availability.</p>   |
| <p>9. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES: Are any federally listed threatened or endangered species or identified habitat present? Any wetlands? Sensitive Species or Species of special concern?</p>                            | <p>[Y] <b>Action Alternative:</b> No unique, endangered, fragile or limited environmental resources are present in this area.</p> <p>[N] <b>NO Action Alternative:</b> No resources in the area will be effected.</p>  |
| <p>10. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?</p>   | <p>[Y] <b>Action Alternative:</b> A field survey of the project location revealed no cultural sites within the project perimeter.</p>  |

## II. IMPACTS ON THE PHYSICAL ENVIRONMENT

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| 11. AESTHETICS: Is the project on a prominent topographic feature? Will it be visible from populated or scenic areas? Will there be excessive noise or light?                                      | [Y] <b>Action Alternative:</b> The aesthetics of this area will be permanently altered. A pit reservoir and water collection box will be visible to anyone in the immediate area.<br><br>[N] <b>NO Action Alternative:</b> The aesthetics of this area will not be altered.   |
| 12. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY: Will the project use resources that are limited in the area? Are there other activities nearby that will affect the project? | [Y] <b>Action Alternative:</b> No other resources will be effected by this project.<br><br>[N] <b>NO Action Alternative:</b> No resources will be effected.   |
| 13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA: Are there other studies, plans or projects on this tract?   | [Y] <b>Action Alternative:</b> There is a Department of Natural Resources and Conservation (DNRC) grazing lease which authorizes grazing on this tract. Grazing in this area will be enhanced by this project due to prolonged water availability in the pit reservoir.<br><br>[N] <b>NO Action Alternative:</b> There will be no impact on the DNRC grazing lease. |

## III. IMPACTS ON THE HUMAN POPULATION

| RESOURCE  | [Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES   |
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| 14. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?                                | [Y] <b>Action Alternative:</b> There will be some health and safety concerns during the construction of this project. A backhoe will be used during the construction of this project. Workers are aware of these health and safety hazards and recognize them as occupational hazards. Once the construction has been completed, there will be no health and safety concerns associated with this project.<br><br>[N] <b>NO Action Alternative:</b> There will be no health and safety concerns in this area. |
| 15. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities? | [Y] <b>Action Alternative:</b> A more reliable water source will result from the development of this spring. Livestock utilize the land surrounding this spring. The implementation of this project will help distribute livestock in the area, which may result in increased livestock production.<br><br>[N] <b>NO Action Alternative:</b> Livestock will not benefit from the added water source. This could result in reduced livestock production.   |
| 16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If                          | [Y] <b>Action Alternative:</b> There will be an economic benefit to the local economy from the spring   |

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| <p>so, estimated number.</p>  | <p>development. Materials, machinery, and labor needed for the construction of this project may be acquired from local businesses. Local contractors will be employed to construct this project.</p> <p>[N] <b>NO Action Alternative:</b> This will result in the loss of revenues to the local economy. The materials for this project will not be purchased and local contractors will not be employed to install the spring development.</p> |
| <p>17. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?</p>   | <p>[Y] <b>Action Alternative:</b> This project may maintain a local and state tax base through continued local employment for employer and employee taxes. This project may also increase tax revenues if unemployed persons are hired.</p> <p>[N] <b>NO Action Alternative:</b> This could negatively effect employment security for some local businesses.</p>  |
| <p>18. DEMAND FOR GOVERNMENT SERVICES: Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc) be needed?</p>                                    | <p>[Y] <b>Action Alternative:</b> Demands for government services will not be effected.</p> <p>[N] <b>NO Action Alternative:</b> Demands for government services will not be effected.</p>  |
| <p>19. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?</p>  | <p>[Y] <b>Action Alternative:</b> No zoning or management plans will be effected.</p> <p>[N] <b>NO Action Alternative:</b> No zoning or management plans will be effected.</p>  |
| <p>20. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES: Are wilderness or recreational areas nearby or accessed through this tract? Is there recreational potential within the tract?</p> | <p>[Y] <b>Action Alternative:</b> The development of this project will create a more reliable water source, which will benefit wildlife ungulate populations. This could benefit recreational opportunities on this State land through increased hunting opportunities.</p> <p>[N] <b>NO Action Alternative:</b> No recreational opportunities will be enhanced.</p>  |
| <p>21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing?</p>   | <p>[Y] <b>Action Alternative:</b> Population and housing will not be effected.</p> <p>[N] <b>NO Action Alternative:</b> Population and housing will not be effected.</p>  |
| <p>22. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?</p>   | <p>[Y] <b>Action Alternative:</b> Social structures will not be effected.</p> <p>[N] <b>NO Action Alternative:</b> Social structures will not be effected.</p>  |
| <p>23. CULTURAL UNIQUENESS AND DIVERSITY: Will the</p>  | <p>[Y] <b>Action Alternative:</b> The cultural uniqueness and</p>   |

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| the area?  | diversity of this area will not be effected.<br><br>[N] <b>NO Action Alternative:</b> The cultural uniqueness and diversity of this area will not be effected.   |
| 24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES: | [Y] <b>Action Alternative:</b> This project will have some economic benefits to the local economy. These benefits may not be large scale but may provide revenue for local businesses. The local economic structure will benefit if a local contractor and his employees are hired to complete this project. Their services will provide the necessary equipment and expertise in the installation of the collection box, pit reservoir and underground pipe.<br><br>[N] <b>NO Action Alternative:</b> No social or economic benefit would result. |

EA Checklist Prepared By:

*Craig Biggart*  
 Craig Biggart, Land Use Specialist

Date: June 4, 2004

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| IV. FINDING   |  |
| 25. ALTERNATIVE SELECTED:   | Grant Permission to install the Spring Development |
| 26. SIGNIFICANCE OF POTENTIAL IMPACTS:  |  |
| 27. Need for Further Environmental Analysis:  |  |
| <input type="checkbox"/> EIS <input type="checkbox"/> More Detailed EA <input type="checkbox"/> No Further Analysis |  |

EA Checklist Approved By

*R. Hoyt Richards*  
 R. Hoyt Richards, Glasgow Unit Manager

Date: June 4, 2004