

distribution system (Drawing 85324).

Several types of permanent water sources now or will exist on the PWCC leasehold as a result of mining activities (Drawing 85324). They include pre-existing springs, wells (pre-existing and replacement), pre-law and approved or proposed postlaw internal impoundments, water control structures (ponds), public water standpipes, and intermittent reaches of ephemeral channels. Chapter 14, Land Use, contains a comprehensive discussion of these permanent water sources in the section entitled "Postmining Water Sources".

Nineteen permanent internal impoundments currently exist that are available for livestock and/or wildlife use as a part of the postmining landscape (Chapter 9, Facilities, and Drawing 85324). Three are located in the N-2 coal resource area (N2-RA, wildlife habitat only; N2-RB; and N2-RC). The remaining 16 are pre-law and post-law internal impoundments located in the J-3 coal resource area (J3-G and five other unnamed impoundments), J-1 coal resource area (J1-RA and J1-RB), N-8 coal resource area (N8-RA), and the N-1 coal resource area (N1-RA and six unnamed impoundments). Additional pre-law depressions exist that hold water from time to time. However, they are not considered permanent water sources due primarily to restricted watersheds and climatic variation.

PWCC is also proposing to build one additional internal impoundment in the J19 coal resource area (J19-RB). This structure is intended to improve postmine water source distribution and habitat in that area of the leasehold.

PWCC also will retain 31 existing and future sediment control structures (permanent impoundments) to provide surface water bodies for livestock and wildlife in addition to those previously identified. The impoundments include nine existing MSHA structures: J7 Dam, J7-Jr, J2-A, J16-L, J16-A, N-14H, N14-G, N14-F, and N14-D. Twenty smaller, existing sediment control structures are also included. They include J3-D, J3-E, N5-A, N6-L, N11-G, J7-R, TPF-D, TPF-E, N7-D, J16-G, J21-A, J21-C, J27-RA, J27-RB, J27-RC, N7-E, N10-A1, N10-D, N11-A, and N12-C. Two sediment ponds scheduled for construction during the remaining life-of-mining activities are also proposed and include N10-G and J21-I. These existing and proposed ponds all meet or will be upgraded to meet the permanent pond design criteria. Their size, configuration, and upstream watersheds indicate persistent water retention (see the discussion of Permanent Impoundments, Chapter 6). They will also provide water of good quality for their intended uses (see Chapter 14, Land Use).

Two public water standpipes have been constructed by PWCC on the leasehold. These sites, located on Drawing 85324, are connected to the N-aquifer potable water distribution system and provide excellent water in terms of quality and quantity. These sources of water are available for further development as livestock and wildlife watering areas, should the Tribes desire their retention in the postmining land use plans.

#### Maintenance and Management

PWCC's program for the maintenance and management of revegetated areas includes, but may not be limited to, the following elements: monitoring; interseeding, reseeding and augment planting; weed control; rodent control; fencing and fence maintenance; erosion monitoring; rill and gully repair and drainage maintenance; mowing; and grazing.

The maintenance and management activities related to interseeding, reseeding, augment planting and weed control are based upon the performance of revegetated stands as determined by quantitative annual vegetation monitoring and qualitative field inspection activities. When quantitative measurements indicate that a revegetated area is not making reasonable progress with regard to the establishment of a diverse, effective and permanent vegetation cover, the site may be interseeded, augment planted or tilled and reseeded as necessary to improve the stand characteristics in the area. The activity or activities will be directed towards the specific problem or problems identified by the quantitative information or qualitative observations.

Criteria used to determine if rangeland vegetation development is occurring at a desired rate may be based on qualitative and/or quantitative evaluation of seeded stands. Qualitative monitoring of seeded areas will be the primary method to determine if reseeding is necessary. Qualitative evaluation of two to three year old seeded stands has proven suitable for reseeding determinations. If quantitative evaluation is used, seedling density information will be used to compare the number of established perennial plants/ft<sup>2</sup> in the reclaimed area to the following standard: excellent (0.75 or more); good (0.5 to 0.75); fair (0.25 to 0.5); and poor (less than 0.25) (Valentine 1971).

Seeded stands of rangeland will be evaluated by the end of the second growing season following seeding. PWCC will interseed or reseed stands that fail to meet the fair evaluation criterion after the end of the second full growing season, or if qualitative

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