EXHIBIT E – RECLAMATION PLAN

1.0 GENERAL

Area 1 and Area 2 will be mined and reclaimed as part of the development of Pond 1 (Struck Pond) that the landowner, the City of Westminster, will own and use for water storage. Pond 3, previously reclaimed through construction of the slurry wall, will also be used by the City of Westminster for water storage; please see Technical Revision (TR) 1 for slurry wall technical specifications and construction completion report (12/18/2014), approved by DMRS (1/8/2015). Other un-reclaimed but previously mined areas within the permit boundary will also be reclaimed through backfilling, as needed, and minor grading, and establishment of plantings and ground covers to restore and enhance all areas disturbed by current or previous mining activities.

The primary changes in the current DRMS permit amendment reclamation plan compared with the 2004 DRMS permit reclamation plan include the following (changes to the mining plan are noted in Exhibit D):

- Pond 1, now called the Struck Pond, has an expanded footprint to the west of the originally planned pond in the area previously identified for wetland mitigation area and slightly north as well; this adjustment to the north results in an addition to the affected area covered under the 2004 permit, thus requiring this amendment.
- Pond 2, identified in 2004 in the west-northwest part of the permit area, now is planned for wetland mitigation with part of the area to remain dedicated for access to two remaining producing oil wells.
- The Pond 3 boundary along the west side was straightened during mining and a slurry wall was constructed around the revised pond perimeter.
- Some of the previously identified wetland mitigation areas are changed in location to accommodate revised plans for future use of the site.
- The wetland planting list is updated based on recent information including a wetland survey.

Key considerations for preparing this reclamation plan include the following:

- All wetlands on the site were located and delineated in June and August 2022. Existing wetlands will be avoided to the extent feasible during mining, earthmoving, and reclamation activities. Also, wetlands will be created in the identified wetland mitigation areas.
- Maintenance activities on the site will also include a comprehensive Weed Management Plan to limit the spread of invasive species into the riparian areas and wetlands.
- The Pond 1 (Struck Pond) reservoir will be isolated from the surrounding alluvial aquifer by constructing a slurry wall; a perimeter drain will also be constructed to minimize impacts of the slurry wall on groundwater flow through this area.
- Multiple groundwater monitoring wells are located within the permit area and will continue to be monitored before, during, and after the mining and reclamation are completed. The wells will be used to monitor effects from mining and provide information for mitigation of potential impacts on groundwater levels and riparian vegetation, as necessary. See Exhibit G for more information.

2.0 RECLAMATION OVERVIEW

As discussed in the Mining Plan (Exhibit D), Holcim anticipates conducting operations under this DRMS permit amendment in three phases for a total duration of 18 months, with mining of Area 1 and Area 2 planned for only 2 months of that duration (in Phase 1 only). The reclamation activities in these three phases will occur concurrently (for Phase 1) or within nine months after completion of Phase 1 (for Phases 2 and 3). Reclamation will focus on constructing the pond liner/slurry wall and also general backfilling and earthwork leading up to planting and seeding to establish vegetation in the disturbed areas. Reclamation, including regrading and seeding, will be completed within 2 to 5 years following initiation of these remaining reclamation activities. The three phases are:

1. Phase 1 – Concurrent activities (10 months)
    a. Grade/fill to achieve side slopes of 3:1

   b. Build up south edge of existing Pond 1 on south side to create 50-ft buffer from top of pond slope to the edge of county road
   c. Mine areas 1 and 2 with post-mining pond depth of 42 ft
   d. Place fill in other parts of the site to achieve reclamation grades
2. Phase 2 – Construct slurry wall and perimeter drain (2 months)
3. Phase 3 – General earthwork on western side of footprint (excess fill to be used for backfill as needed in other parts of the site) (6 months)

Each area will be reclaimed using soil, overburden, process fines, and other inert materials from on-site. However, if materials from off-site are used, the applicant will provide the Division with the appropriate notices and affidavit in accordance with Rule 3.1.5(9). There will not be known toxic or hazardous materials in the backfill material. Additionally, no acid-forming or toxic materials will be used during mining and it is unlikely they will be encountered in the mining. The mining will not leave high walls on the property. There will be no auger holes, adits, or shafts left on the property.

Reclamation quantities and costs are summarized in Exhibit L.

3.0 POST-MINING LAND USE

The post-mining land use, as proposed in this Reclamation Plan consists of water storage ponds surrounded by wetland and upland vegetation. In this area of Weld County, mining and developed water storage are predominant land uses along the South Platte River. Therefore, the proposed post-mining land use is compatible with surrounding land uses. The area within the proposed permit boundary will consist of two reservoirs, reservoir shorelines, backfilled wetland/riparian mitigation areas, permanent access and county roads, and other reclaimed or otherwise undisturbed land. The following areas will comprise the final land use:

Reclamation and Post-Mining Land Use Areas	Area (acres)
Reservoirs – Ponds 1 and 3	176.3
Wetland mitigation total area	36.7
Cottonwood replacement total area	10.0
Access roads (reclaimed)	1.1
Misc. upland disturbed areas (reclaimed)	10.0
Areas that are undisturbed, previously disturbed and reclaimed, or access and county roads (permanent)	186.7
TOTAL	420.8

Some roads inside the proposed permit boundary will not be reclaimed but will remain for accessing and maintaining the reservoirs, wetland mitigation areas, and oil wells. The existing vehicle access road over the southern end of the Huett Seep/Ditch will remain. Unimproved roads around all reservoirs will also remain.

Conveyor systems and bridges will be removed under reclamation planned for Tucson South and are not covered under the Wattenberg reclamation activities. Roads within the Wattenberg permit area that are not necessary for future access and other disturbed areas in the permit area will be reclaimed with vegetative cover to stabilize the soil and minimize erosion.

4.0 RECLAMATION MEASURES – MATERIAL HANDLING

Site reclamation measures are illustrated in Exhibit F. Reclamation of the site will include development of two water storage reservoirs (total of 176.3 acres), wetland and cottonwood vegetation (total of 46.7 acres), and upland vegetation will be established on access roads to be reclaimed and miscellaneous disturbed areas (total of 11.1 acres). Areas not mined nor disturbed by other site operations (outside of the 2004 permit and planned activities) will not be subject to reclamation under this plan; these areas cover a total of 186.7 acres.

The mining and backfilling operations will create the rough topography for the Pond 1 reservoir shoreline. The backfilling will be done to provide stabilized shorelines around the reservoir and to minimize erosion. As shown in Exhibit F (Map F-1), backfilling of two existing unnamed ponded areas (from previous mining) will take place for final reclamation use for wetlands or cottonwood replacement; these areas are in the northwest and southeast corners of the permit area. Minor grading to reclamation grades will take place in all areas subject to reclamation.

The backfill material will consist of native bedrock claystone and overburden and will be obtained from mining of Area 1 and Area 2 as well as fill material from previous mining that, for example, remains in the area immediately west of the mining area. Scrapers will be used to place the backfilled material. For Pond 1, using scrapers to layer the lifts at a maximum 3:1 slope ensures a stable configuration.

Growth medium will be spread to a depth of approximately 6 inches over the surface of all areas to be revegetated as uplands or wetlands.

5.0 WATER STORAGE RESERVOIRS

As noted above, the reclamation includes construction of the slurry wall and perimeter drain around the perimeter of the final footprint of Pond 1. Design specifications for the slurry walls and quality control procedures used during construction will ensure that the reservoirs meet State Engineer's Office (SEO) performance standards. Specific specifications and quality control procedures will be provided to the Division for review prior to construction of the slurry walls.

The bottom of Pond 1 will coincide with the existing, relatively impermeable claystone bedrock. The slurry wall will also separate the pond from the surrounding alluvial aquifer. The slurry wall will be keyed into the bedrock material and extend upward through the entire length of the saturated alluvium.

All reservoir slopes left by the mining operation will be reclaimed to at least 3H:1V final grade; slopes above the post-mine high water level will be 3:1 and slopes below the post-mine high water level will be no steeper than 3:1. Reclamation of the side slopes will take place concurrent with mining of Area 1 and Area 2. Scrapers will be used to place bedrock claystone and overburden material along the reservoir perimeters to achieve the final grade. Final reclamation by capping with growth medium and re-vegetating above the expected reservoir water level will follow backfilling operations closely to minimize the amount of disturbance at any one time.

During reclamation activities, inlet and outlet works for Pond 1 will be installed. The inlet works will be constructed to provide water from the Brighton Ditch along the west side of the site. Outlet works will be designed and constructed by the City of Westminster, the user of the reservoir for water storage. The design specifications and plans for the facilities will be provided to the Division prior to construction.

6.0 REPLACEMENT WETLAND AND RIPARIAN AREAS

Specific areas identified in Exhibit F (Map F-1) will be reclaimed for wetland mitigation (36.7 acres) or cottonwood replacement (10.0 acres). Reclamation will begin after backfilling and minor grading and placement of growth media are completed in a reclamation area. Depending on groundwater elevations, the final surface elevation of the backfilled wetland mitigation areas may be below the existing and surrounding ground elevation. Any slopes remaining will be reclaimed to a minimum 3H:1V grade. In the northwest part of the permit area, a 25-ft setback will be included from County Road 23 ½ to the top of the 4H:1V slope that is graded down to the wetland area.

All areas disturbed by mining and site reclamation activities will be revegetated as appropriate with a seed mix, depending on the type of reclamation to be completed – wetland or upland. The planned seed mixes are presented below.

7.0 SURFACE WATER AND GROUNDWATER

Overburden and mine materials will be inert and impacts to local surface water or groundwater quality are not anticipated to occur because of mining activities. Holcim will comply with all applicable Colorado water laws and all

applicable Federal and State water quality laws and regulations and appropriate storm water management and erosion control to protect the adjacent South Platte River and riparian vegetation.

8.0 WILDLIFE

The area covered by this reclamation plan was formerly used for mining or general agriculture. There is significant habitat for many wildlife species along the river corridor which is outside our permit boundary. Please see Exhibit H (Wildlife Information) for more information.

While the reclamation plan does not propose to create wildlife habitat, all activities will be planned considering the safety and protection of wildlife on the property. Some species may be temporarily displaced by the mining and reclamation activities, but these species are expected to re-establish with no difficulty after the reclamation has been completed. The creation of the lakes and replacement wetlands may create additional opportunities for aquatic birds, mammals, and fish.

9.0 GROWTH MEDIUM

Surface soils in the proposed mine and reclamation areas are predominantly Altvan loam, Aquolls and Aquents, and Dacono clay. All suitable soil material will be salvaged for use as growth medium. Up to 6 inches of surface soil on the property, where disturbance is planned, is expected to be usable as growth medium for reclamation. This layer includes the root zone of grasses and crops, which will be stripped and stockpiled separately.

The growth medium will be segregated and stored separately from the overburden material as required by Rule 3.1.9(1). Sufficient growth medium will be stockpiled to reclaim all disturbed areas. The mine plan map depicts the location and configuration of the berms. The berms will be protected from wind and water erosion by vegetative cover if in place for more than 180 days and will be vegetated depending on the seeding “window” parameters for dryland grass, which are typically between September and April.

Based on the mining and reclamation phasing and schedule, the growth medium is not expected to remain stockpiled for more than 1 to 2 years. If the stockpile remains for more than one growing season, it will be seeded with a fast-growing vegetative cover to prevent erosion. Where required for reclamation, growth medium will be placed to a depth of approximately 6 inches.

10.0 REVEGETATION

As mining and backfilling operations are completed, areas for reclamation will be graded and shaped for revegetation. Runoff or excess water from adjacent areas will not be allowed to flow over slopes being graded and seeded. Following placement of growth media, seeding and planting will be performed according to NRCS recommended practices. All disturbed areas will be revegetated as part of the reclamation process. The following revegetation procedures are anticipated but may be modified as conditions dictate:

- Grass seed will typically be planted in unfrozen soil between October 1 and April 30.
- Grass seed will be planted with a grass drill, or where necessary, with a broadcast seeder.
- The proposed seed mixes and application rates in pounds of pure live seed per acre are listed below.
- Weed control practices will be implemented as required.

Upland Areas. For disturbed upland areas, the reclamation plan includes revegetating with appropriate seed mixes to minimize erosion and reestablish natural terrain. The grass mixture below was selected to be long lasting and regenerating. The ground surface will be fine graded prior to seeding. Reservoir side slopes below the anticipated reservoir water level will not be seeded.

Upland grass seed will be planted with a drill equipped with depth bands and press wheels. The seeded areas will then be covered with straw mulch at a rate of 2,000 pounds per acre. The straw will be crimped into the soil to

control erosion until the grass becomes established. As an alternative, hydroseeding and hydromulching may be used to apply seed (at double the drill rate) and mulch.

The following upland seed mixture is planned:

Upland seed mix – 2004 permit

Common Name	Scientific Name	Variety	% of Mix	PLS Application Rate (lbs/ac)
Sideoats Grama	Bouteloua curtipendia	Vaughn	30.0%	1.35
Switchgrass	Panicum virgatum	Grenville	11.0%	0.5
Blue Grama	Bouteloua gracilis	Lovington	6.5%	0.3
Western Wheatgrass	Agropyron smithii	Barton	52.5%	2.4
Total lbs/ac			100%	4.55

Notes:

1. Pure Live Seed pounds per acre; rates shown are for drill seeding; double rates for broadcast seeding.
2. All upland areas will be mulched with 1 ton of certified weed free straw per acre. Mulch shall be applied within 24 hours of seeding and crimped in place.

Wetland Mitigation and Cottonwood Replacement Areas. The wetland mitigation areas will be planted and seeded with wetland plants at the locations shown in Exhibit F (Map F-1); cottonwood replacement areas are also shown in Map F-1. The wetland mitigation plan for the wetland areas, recently submitted to the U.S. Army Corps of Engineers (USACE) under the Clean Water Act Section 404 permit application for the Wattenberg Lakes site, is attached to this exhibit; see this document for further details. The following wetland seed mixture is planned, with wetland type indicated as shown in Map F-1:

Wetland seed mix (from Wattenberg Wetland Mitigation Plan, April 2023).

Scientific Name	Common Name	Wetland Type
Tree		
Populus deltoides	Plains cottonwood	Cottonwood
Shrub		
Salix exigua	Sandbar willow	Willow-shrub
Salix amygdaloides	Peachleaf willow	Willow-shrub
Herbaceous		
Bechmannia syzigachne	American sloughgrass	Tall emergent
Carex spp.	Sedge	Tall emergent
Distichlis spicata	Inland saltgrass	Saltgrass meadow
Eleocharis palustris	Common spikerush	Tall emergent
Juncus spp.	Rush	Wet meadow, Saltgrass meadow
Panicum virgatum	Switchgrass	Tall emergent, Saltgrass meadow
Sagittaria latifolia	Broadleaf arrowhead	Tall emergent
Schoenoplectus spp.	Sedge	Tall emergent
Scirpus spp.	Sedge	Wet meadow, Tall emergent
Sparganium eurycarpum	Great bur-reed	Tall emergent
Spartina gracilis	Alkali Cordgrass	Saltgrass meadow
Spartina pecinata	Prairie cordgrass	Tall emergent, Saltgrass meadow

11.0 WEED MANAGEMENT PLAN

A weed management program will be undertaken to control noxious and invasive plant species and to replace those species with appropriate non-invasive vegetation. The requirements of the wetland mitigation plan accepted by the USACE for this site will be followed under that plan which includes a commitment to manage State-listed noxious weeds in the mitigation areas. State-listed noxious weeds will be controlled, and reseeding and irrigation will occur as needed to establish self-sustaining desirable vegetation. As an example, Canada thistle (*Cirsium arvense*) and leafy spurge (*Euphorbia esula*) will be treated by a combination of mowing at regular intervals and herbicides used at the appropriate times and applications levels.