# MAP 1 TABLE <br> MANAGEMENT ACTIONS FOR THE 91 LAKES 

Note: This "Map 1 Table" combines information from tables 4 and 5 in the "Alternatives" chapter of this Draft Mountain Lakes Fishery Management Plan / Environmental Impact Statement.

This table presents a standard set of fishery management actions for implementation under alternatives B and C. Note that management actions under alternative A would not change from current management, and management actions under alternative D only involve discontinuing stocking and removing all fish. The standard management actions in this table are broken down into classes 1-4, based on the Technical Advisory Committee's current understanding of the presence, reproductive status, and density of fish in the lakes. These standard management actions would require periodic monitoring and evaluation to facilitate adaptive management.

## For a lake that is currently fishless:

1 The lake would remain fishless.
For a lake with high densities of reproducing fish, apply one of the following management actions:
Remove all reproducing fish. Monitor the recovery of native organisms and keep the lake fishless.
2B Remove all reproducing fish. Monitor lake conditions and use the results to determine whether or not to restock the lake with nonreproducing fish. If the lake is restocked and monitoring results indicate fish are causing major adverse impacts, then fish densities would be reduced by changing stocking densities, stocking cycles or the species of stocked fish. If these management changes do not work, then discontinue stocking (see "Appendix F: Proposed Mountain Lakes Fishery Monitoring Plan" for more information on adaptive management).

2C Remove all reproducing fish. Implement a resting period (that is, keep the lake fishless for a period of time) to foster recovery of native organisms. The duration of the resting period will be determined on a lake-by-lake basis based upon monitoring results. If monitoring results indicate favorable recovery of native organisms, then restock the lake with low densities of nonreproducing fish and monitor lake conditions. If monitoring results indicate fish are causing major adverse impacts, then reduce stocking densities, stocking cycles, or the species of stocked fish. If these management changes do not work, then discontinue stocking (see "Appendix F: Draft Monitoring Plan for the Mountain Lakes Fishery Management Plan" for more information on adaptive management).

For a lake with low densities of reproducing fish, apply one of the following management actions:
Remove all reproducing fish. Monitor the recovery of native organisms, and keep the lake fishless.
3B Evaluate the reproductive status of fish and the status of indicator taxa. If fish density is high enough that impacts on indicator taxa may be major, apply prescription $2 \mathrm{~A}, 2 \mathrm{~B}$, or 2 C . If fish densities and impacts to indicator taxa are low, maintain the low fish densities. If monitoring data indicate fish are causing major adverse impacts, then completely remove fish (see "Appendix F: Proposed Mountain Lakes Fishery Monitoring Plan" for more information on adaptive management).

3C For lakes with extremely low densities of fish, augment the population with supplemental stocking and monitor indicator taxa. If monitoring results indicate fish are causing major adverse impacts, then stop stocking and remove all fish (see "Appendix F: Proposed Mountain Lakes Fishery Monitoring Plan" for more information on adaptive management).

For a lake that has been stocked and does not contain a reproducing population of fish, apply one of the following management actions:
4A Discontinue stocking. Monitor the recovery of native organisms.
4B Lack of data for decision-making. Discontinue stocking and monitor lake conditions. If the lake is restocked and monitoring results indicate fish are causing major adverse impacts, then discontinue stocking (see "Appendix F: Proposed Mountain Lakes Fishery Monitoring Plan" for more information on adaptive management).

4C Continue stocking with low densities of fish expected not to reproduce in the lake. If monitoring results indicate fish are causing major adverse impacts, then reduce stocking densities, stocking cycles or the species of stocked fish. If these management changes do not work, then discontinue stocking (see "Appendix F: Proposed Mountain Lakes Fishery Monitoring Plan" for more information on adaptive management).

## Map 1 Table (CONtinued)

Note: The shaded rows indicate lakes that are in Ross Lake and Lake Chelan National Recreation Areas; the other lakes are in the national park portion of the North Cascades Complex.

| Lake Name | NPS <br> Lake Code | Current Condition of Lake (as represented under Alternative A) | Management Action |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Alternative B | Alternative C | Alternative D |
| Azure | MP-09-01 | Fishless | 1 | 1 | 1 |
| Battalion | MLY-02-01 | High density reproducing fish | 2B | 2B | 2A |
| Bear | MC-12-1 | High density reproducing fish | 2 C | 2A | 2A |
| Berdeen | M-08-01 | High density reproducing fish | 2 C | 2 A | 2 A |
| Berdeen, Lower | M-07-01 | High density reproducing fish | 2 A | 2 A | 2 A |
| Berdeen, Upper | M-09-01 | High density reproducing fish | 2 A | 2 A | 2 A |
| Blum (Largest/Middle, No. 3) | M-11-01 | High density reproducing fish | 2B | 2 A | 2 A |
| Blum (Lower/West, No. 4) | LS-07-01 | High density reproducing fish | 2 C | 2 A | 2 A |
| Blum (Small/North, No. 2) | MC-01-01 | Fishless | 1 | 1 | 1 |
| Blum (Vista/Northwest, No. 1) | MC-02-01 | Fishless | 1 | 1 | 1 |
| Bouck, Lower | DD-04-01 | High density reproducing fish | 2 C | 2 C | 2 A |
| Bouck, Upper | DD-05-01 | Stocked with nonreproducing fish | 4A | 4A | 4A |
| Bowan | MR-12-01 | Stocked with nonreproducing fish | 4A | 4A | 4A |
| Coon | MM-10-01 | Stocked with nonreproducing fish | 4 C | 4 C | 4A |
| Copper ${ }^{\text {a }}$ | MC-06-01 | Stocked with nonreproducing fish | 4B | 4A | 4A |
| Dagger | MR-04-01 | High density reproducing fish | 2B | 2A | 2A |
| Dee Dee, Upper | MR-15-01 | High density reproducing fish | 2B | 2A | 2A |
| Dee Dee/ Tamarack, Lower | MR-15-02 | Stocked with nonreproducing fish | 4A | 4A | 4A |
| Despair, Lower | M-14-01 | Fishless | 1 | 1 | 1 |
| Despair, Upper | M-13-01 | Fishless | 1 | 1 | 1 |
| Diobsud No. 1 | LS-01-01 | High density reproducing fish | 2A | 2A | 2A |
| Diobsud No. 2, Lower | LS-02-01 | High density reproducing fish | 2B | 2A | 2 A |
| Diobsud No. 3, Upper | LS-03-01 | Stocked with nonreproducing fish | 4A | 4A | 4A |
| Doubtful | CP-01-01 | High density reproducing fish | 2 C | 2 A | 2 A |
| Doug's Tarn | M-21-01 | High density reproducing fish | 2 C | 2A | 2A |
| East, Lower | MC-14-02 | Fishless | 1 | 1 | 1 |
| East, Upper | MC-14-01 | Fishless | 1 | 1 | 1 |
| Firn | MP-02-01 | Low density reproducing fish | 3B | 3A | 3A |
| Green | M-04-01 | High density reproducing fish | 2B | 2 A | 2 A |
| Green Bench | LS-04-01 | Fishless | 1 | 1 | 1 |
| Hanging | MC-08-01 | High density reproducing fish | $2 A^{\text {b }}$ | $2 A^{\text {b }}$ | $2 A^{\text {b }}$ |
| Hidden | SB-01-01 | Low density reproducing fish | 3 C | 3A | 3A |
| Hidden Lake Tarn | EP-14-01 | Stocked with nonreproducing fish | 4A | 4A | 4A |
| Hi-Yu | M-01-01 | Stocked with nonreproducing fish | 4B | 4A | 4A |
| Hozomeen | HM-02-01 | High density reproducing fish | 2A | 2A | 2A |
| Ipsoot | LS-06-01 | Low density reproducing fish | 3B | 3A | 3A |
| Jeanita | DD-01-01 | Low density reproducing fish | 3B | 3A | 3A |
| Kettling | MR-05-01 | High density reproducing fish | 2A | 2A | 2A |
| Kwahnesum | MC-07-01 | Stocked with nonreproducing fish | 4A | 4A | 4A |
| McAlester | MR-10-01 | High density reproducing fish | 2B | 2B | 2 A |
| Middle, Lower | MC-16-02 | Fishless | 1 | 1 | 1 |
| Middle, Upper | MC-16-01 | Fishless | 1 | 1 | 1 |
| Monogram | M-23-01 | High density reproducing fish | 2 C | 2A | 2A |
| Monogram Tarn | M-23-11 | Stocked with nonreproducing fish | 4A | 4A | 4A |
| Nert | M-05-01 | Stocked with nonreproducing fish | 4A | 4A | 4A |
| Noisy Creek, Upper | LS-14-01 | Fishless | 1 | 1 | 1 |

## Map 1 Table (continued)

| Lake Name | NPS <br> Lake Code | Current Condition of Lake (as represented under Alternative A) | Management Action |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Alternative B | Alternative C | Alternative D |
| No Name | PM-01-01 | Stocked with nonreproducing fish | 4C | 4A | 4A |
| Panther Potholes, Lower | RD-05-02 | Stocked with nonreproducing fish | 4A | 4A | 4A |
| Panther Potholes, Upper | RD-05-01 | Fishless | 1 | 1 | 1 |
| Pegasus | EP-10-01 | Fishless | 1 | 1 | 1 |
| Pond SE of Kettling Lakes | MR-09-01 | Stocked with nonreproducing fish | 4 C | 4C | 4A |
| Quill, Lower | M-24-02 | Stocked with nonreproducing fish | 4B | 4A | 4A |
| Quill, Upper | M-24-01 | Stocked with nonreproducing fish | 4B | 4A | 4A |
| Rainbow | MR-14-01 | High density reproducing fish | 2 C | 2 C | 2 A |
| Rainbow, Upper (North) | MR-13-01 | Fishless | 1 | 1 | 1 |
| Rainbow, Upper (South) | MR-13-02 | Stocked with nonreproducing fish | 4A | 4A | 4A |
| Rainbow, Upper (West) | MM-11-01 | Stocked with nonreproducing fish | 4A | 4A | 4A |
| Redoubt | MC-11-01 | Fishless | 1 | 1 | 1 |
| Reveille, Lower | MC-21-02 | Fishless | 1 | 1 | 1 |
| Reveille, Upper | MC-21-01 | Fishless | 1 | 1 | 1 |
| Ridley | HM-03-01 | Stocked with nonreproducing fish | 4C | 4 C | 4A |
| Sky | EP-13-01 | Fishless | 1 | 1 | 1 |
| Skymo | PM-03-01 | High density reproducing fish | 2C | 2 A | 2A |
| Sourdough | PM-12-01 | High density reproducing fish | 2B | 2A | 2 A |
| Sourpuss | ML-01-01 | Fishless | 1 | 1 | 1 |
| Stiletto | MR-01-01 | Stocked with nonreproducing fish | 4B | 4A | 4A |
| Stout | EP-09-02 | Low density reproducing fish | 3B | 3A | 3A |
| Stout, Lower | EP-09-01 | Low density reproducing fish | 3B | 3A | 3A |
| Sweet Pea | ML-02-01 | Stocked with nonreproducing fish | 4 C | 4A | 4A |
| Talus Tarn | M-06-01 | Fishless | 1 | 1 | 1 |
| Tapto, Lower | MC-17-03 | Fishless | 1 | 1 | 1 |
| Tapto, Middle | MC-17-02 | Fishless | 1 | 1 | 1 |
| Tapto, Upper | MC-17-01 | Fishless | 1 | 1 | 1 |
| Tapto, West | MC-17-04 | Fishless | 1 | 1 | 1 |
| Thornton, Lower | M-20-01 | Low density reproducing fish | 3C | 3A | 3A |
| Thornton, Middle | M-19-01 | Stocked with nonreproducing fish | 4 C | 4A | 4A |
| Thunder | RD-02-01 | Fishless | 1 | 1 | 1 |
| Tiny | MC-15-01 | Fishless | 1 | 1 | 1 |
| Torment | ML-03-01 | Stocked with nonreproducing fish | 4A | 4A | 4A |
| Trapper | GM-01-01 | Low density reproducing fish | 3B | 3A | 3A |
| Triplet, Lower | SM-02-01 | High density reproducing fish | 2 C | 2 C | 2 A |
| Triplet, Upper | SM-02-02 | High density reproducing fish | 2A | 2A | 2 A |
| Triumph | M-17-01 | Stocked with nonreproducing fish | 4 C | 4A | 4A |
| Unnamed | FP-01-01 | Fishless | 1 | 1 | 1 |
| Unnamed | MR-11-01 | Stocked with nonreproducing fish | 4 C | 4 C | 4A |
| Unnamed | MR-16-01 | Low density reproducing fish | 3B | 3B | 3A |
| Vulcan | ML-04-01 | Fishless | 1 | 1 | 1 |
| Wilcox/Lillie, Upper | EP-06-01 | High density reproducing fish | 2A | 2A | 2A |
| Wilcox/Sandie, Lower | EP-05-01 | High density reproducing fish | 2 C | 2A | 2 A |
| Wild | MC-27-01 | Fishless | 1 | 1 | 1 |
| Willow | HM-04-01 | Stocked with nonreproducing fish | 4C | 4C | 4A |

## Notes:

a. In August 2004, a large fish kill was observed in Copper Lake, possibly due to disease. Further surveys are needed to confirm that the lake is fishless.
b. Remove all reproducing fish pending agreement with British Columbia.

