



Photo: John Reaume

BANK SWALLOWS in Pits & Quarries Guidance for Aggregate Producers

With habitats around the world, the bank swallow population in Canada is in decline, with an estimated drop of over 95 per cent since 1970 in Ontario alone. While the exact reason for this decline is unknown, loss of nesting sites and young broods as a result of habitat destruction/disturbance has been cited as a possible reason.

BACKGROUND:

The bank swallow (*Riparia riparia*), can nest in colonies from 3 to about 2,000 burrows and average about 70 burrows. Sand and gravel pits often provide suitable habitats for bank swallow colonies and have become important nesting sites for this species.

The bank swallow eats flying insects and spends the winter in South America. It returns to Canada between late April and May to breed. Burrow numbers generally continue to increase until mid-to-late June and colonies often remain active until mid-August.

BANK SWALLOWS IN PITS & QUARRIES

- Bank swallows are attracted to pits and quarries. They build nests in stockpiled product or banks and they prefer sand or silty sand.
- Breeding season is early May to mid-August in southern Ontario and late-May to mid-August north of Sudbury.
- Excavation or construction during the spring and summer can negatively affect bank swallows or their nesting sites (Environment Canada, 2011).
- These birds will take advantage of stockpiled product and small banks up to large extraction faces offering suitable habitat within a pit, which has the potential to reduce operational access to these areas during the breeding season.



Photo: Mark Browning

The nest is built at the end of a burrow dug mostly by male bank swallows into a vertical bank of sand or silt, or similar material.

YOUR LEGAL RESPONSIBILITY

Bank swallows and their nests are protected under the federal *Migratory Birds Convention Act, 1994*. It is an offence for anyone to kill, hunt, capture, injure, harass, take or disturb a migratory bird nest or eggs. Offenders are liable to a fine or imprisonment. A review is currently underway to determine whether the bank swallow should be declared a species at risk in Ontario.

WHAT YOU CAN DO

- Pre-plan in March to early April (or mid-May north of Sudbury) by altering working faces and stockpiles to prevent harassment or harm to bank swallows. Manage these areas throughout the breeding season to make these potential nesting sites unattractive. See next page for details.
- Provide alternate nesting sites in an inactive portion of your pit or quarry. See next page for details.

HOW TO CREATE & PROTECT HABITAT

✓ **DO** set aside pre-existing suitable habitat or create new habitat in inactive area(s) of a pit or quarry before the breeding season begins by creating vertical faces of 70 degrees or more in piles or banks. These areas should be off-limits to excavation for the duration of the breeding season from May - August. Heavy machinery near colonies is likely to disturb the swallows and reduce nesting productivity.

✓ **DO** cordon off these areas and inform all pit employees of the location of the colony and to avoid disturbing the colony until further notice when bird colonies are established, or suitable faces are created. This will help conserve active colonies. (Using sand piles, or pylons with or without police tape, are easy and effective ways to cordon off nesting sites.)

HOW TO DISCOURAGE BANK SWALLOWS FROM NESTING

✓ **DO** discourage bank swallows from nesting in areas that will be excavated over the breeding season by contouring faces to have a less vertical slope (either by sloping off or piling material on the face to create a slope that is less than 70°). Vertical faces located high up on a slope may have to be altered from above if possible, or extraction in these areas should be scheduled for after mid-August when the birds have left.



Photo: Charles M. Francis

✓ **DO** install bird deterrent devices before breeding season starts, such as plastic owls (Great Horned Owls), to discourage bank swallows from establishing a colony in suitable banks.

✗ **DON'T** use deterrent devices (e.g. plastic owl) once a colony has been established since this could interfere with the bank swallow's ongoing nesting activities.

OTHER GENERAL CONSIDERATIONS

✓ **DO** secure access to your stockpiled material throughout the season by ensuring no vertical faces remain in the stockpile. (Slopes less than 70 degrees will prevent birds from nesting.)

✓ **DO** extract material ahead of the breeding season and create suitable habitat in the process by creating vertical faces greater than 70 degrees.

✓ **DO** devote a few minutes to removing vertical faces at the end of the work day so that bank swallows don't begin to build in these faces overnight or over a weekend.

✗ **DON'T** operate heavy machinery or excavate material within 50 metres of a colony. However, moving heavy equipment past a colony once is unlikely to cause any problems.



Photo: Robert McCaw

RESOURCES:

Environment Canada. 2011. *Bank Swallow Know Your Legal Obligations (CW66-297/1-2011E-PDF)*. Retrieved from http://publications.gc.ca/collections/collection_2011/ec/CW66-297-1-2011-eng.pdf

Quarry Products Association Northern Ireland. *Biodiversity Advice Notes Sand Martin Riparia riparia*. Retrieved from <http://www.qpani.org/pdf/sandmartinadvicenotes.pdf>

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